



**BORN TO RULE
THE FOREST**

 **Innovation in Motion**
TSUBAKI
For when it really matters

F O R E S T R Y P R O D U C T S C A T A L O G U E

Products for the Forestry Industry

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FORESTRY GRADE IS YOUR EXPECTATION.

To us this means providing products that meet some of the most demanding applications in the industry. Period. Shock load, fatigue limit, abrasion, extreme speed, maintenance-free are all demanding conditions that Tsubaki products excel at. Nobody has the range of products that meet Forestry grade that Tsubaki does. Drive chains, conveyor chains with attachment, Sharp Top chains, drag and mill chains, full range of sprockets, several types of bushings including Power Locks are all the products that suit the needs of Forestry.

You can rely on Tsubaki's experience in field and technical support to provide solutions you need to increase production and reduce cost. On-site training, application survey and trouble shooting, wear and failure analysis with recommendation are key services we provide to the Forestry industry.

Documented cost savings are proof that our products and sales effort can work for you. All of this catalogue's print date proven cost savings in the Forestry alone totaled \$748,759.60 US.

Tsubaki quality means Forestry Grade proven!



Our services include the following:

Maintenance Seminars

- Professional Audio-Video Presentation
- Hands-on Learning
- Certificate of Attendance
- Course Material Handout Package
- Metal Chain Wear Scale
- Group Picture

Site Surveys

- Two-Person Teams from Tsubaki
- Chain Identification and Drawing
- Wear Life Estimate
- Identify Condition and Critical Points
- Establish Regular Follow-Up Schedule
- Report will be provided within 1 week of survey completion

Application Troubleshooting and/or Wear Analysis

- Tsubaki Technical Services Staff Site Visit
- Initial Evaluation
- Full report will be provided within 48 hours of completion of site visit, including selection verification

Facility Tour and Full Day Seminars

Sprocket Manufacturing Facility Tour:

- Learn the techniques and processes used in sprocket production

Various Seminar Topics Available:

- Maintenance
- Troubleshooting
- Basic and Advanced Product Selection
- Chain Academy (Basic School)
(Meals/snacks/beverages may be provided)

Failure and/or Wear Analysis

- A full report will be provided within 48 hours and will include photos, failure/wear causes, effect and solutions
- If more time (ie. over 48 hours) is required to complete the final report, we will provide the findings to date in a preliminary report

Sample Identification

- Chain number and sketch

Chain Selection

Simple Selection:

- A report that indicates selection process only

Intermediate Selection:

- Detailed Report
- Drawing of Selected Product
- Calculations
- Double Check Sign Off

Advanced Selection (includes all of above plus:)

- Expected Life Estimate
- Maintenance Requirements and Schedule

TSUBAKI ENVIRONMENTAL ACTION PLAN

With its focus on manufacturing, TSUBAKI takes a unique approach to the challenges of environmental conservation.

Principle

The TSUBAKI Group believes that environmental conservation is a critical challenge facing humanity. We will remain mindful of environment in all our operations and contribute to the world through our workmanship.

Environmental Policy

- We will acknowledge the environmental impact of our operations, products, and services. In the interests of environmental conservation, we will use our creativity to exhibit industry leadership in reducing our environmental load.
- We will create a management system for environmental conservation and will promote pollution control and continual improvement.
- We will strictly comply with environmental laws, rules, and regulations and will seek to develop good relationships with our stakeholders.
- Through environmental training and in-house public relations, we will work to enhance awareness of environmental conservation among all TSUBAKI Group employees.

When an environment in harmony with people and our planet really matters

We are applying the collective expertise of the TSUBAKI Group to an Environmental Action Plan that takes a global perspective.

Accredited with ISO 14001 Certification for Our Environmental Management System

- All TSUBAKI Group workplaces in Japan have acquired ISO 14001 certification; a growing number of TSUBAKI Group workplaces outside Japan are doing so as well.

Ongoing Efforts to Reduce Our Environmental Impact

- We are reducing CO² emissions resulting from our energy consumption.
- We are implementing recycling and waste-reduction initiatives.

Ensuring Strict Compliance with Environmental Laws and Regulations

- We are instituting a management system at all our workplaces to ensure full compliance with local laws and regulations.

Initiatives Targeting Eco-Friendly Products

- Our adoption of green procurement encompasses outsourcing of processing, production materials, and consumables.
- We incorporate environmentally friendly design into the product development stage.
- We are eliminating hazardous chemicals from our products.

Environmental Training, Public Relations and Other Initiatives

- We are enhancing our environmental website and are providing timely information about our operations.



Reducing CO² emissions with a highly efficient cogeneration system.



This heat exchange system cools our injection molding equipment with heat from an electrical generator.



Plastic Chain



Linisort-V



NEP Chain

Did you know that many of TSUBAKI's eco-friendly products are part of our daily lives?

Eco-Friendly Products

Reduce, Reuse and Recycle are the "three Rs" of environmental conservation. We develop products and technologies that contribute widely to environmental conservation.

Recyclable Plastic Chain

By collecting and recycling used plastic chains, we are promoting resource conservation and the adoption of recycling.

Linisort Sorting Systems

Linisort systems incorporate linear motors that provide silent, eco-friendly sorting. In addition to featuring a compact configuration, low weight, and low energy consumption, these systems are designed for environmentally friendly disassembly, part sorting, collecting and recycling.

Eco Chain Series

NEP chain is highly corrosion-resistant chain with a surface coating free from designated hazardous chemicals (RoHS Directive compliant). This product series also includes our Lambda Roller Chain, which offers superior oil-free and long-life characteristics; plastic roller chain, which features low-noise operation achieved with our proprietary engineering plastic technology, and stainless steel water processing chain, a field-proven product that has earned an excellent reputation after decades of successful use in wastewater treatment facilities throughout Japan.

Products for the Environmental Market

Water Treatment Facilities and Equipment

Our sewage treatment facilities and equipment help maintain the water quality in water treatment facilities throughout Japan.

Conveyors for the Environmental Market

Our conveyance devices for environmental facilities are used in applications such as waste incineration and processing of industrial waste, household refuse, and sludge. And with equipment provided by TSUBAKIMOTO Bulk Systems Corporation and TSUBAKIMOTO Mayfran Inc., we provide metal conveyance and coolant processing equipment for metal machining and processing applications. Clearly, our conveyor products are meeting the needs of the environmental market.

TSUBAKI GLOBAL NETWORK

Wherever you are in the world, our production and sales network is able to provide your business with the immediate support it needs.



U.S. Tsubaki, Inc. (UST)



Tsubaki of Canada Limited



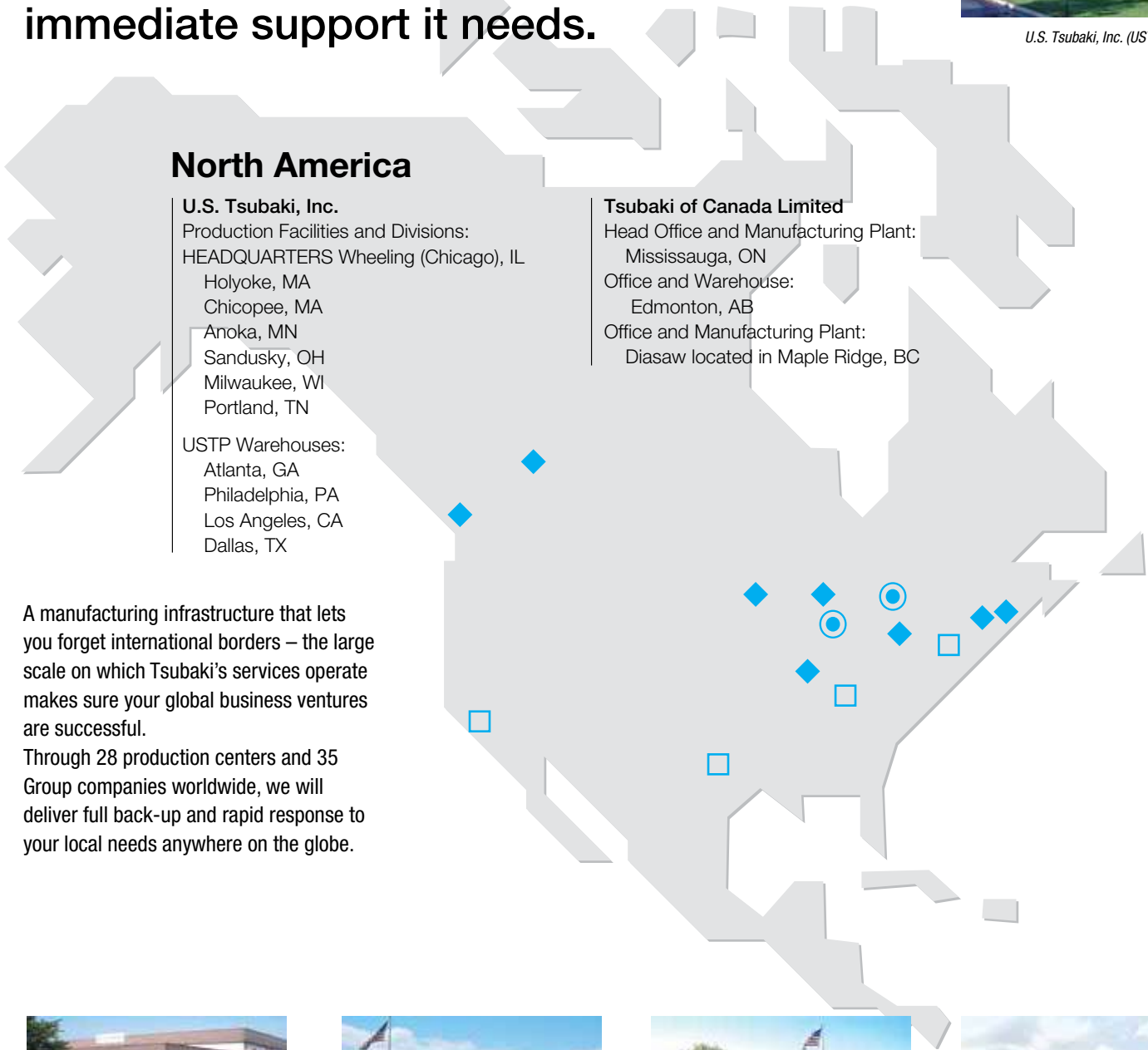
Tsubakimoto Europe B.V.



Korea Conveyor Ind. Co., Ltd.

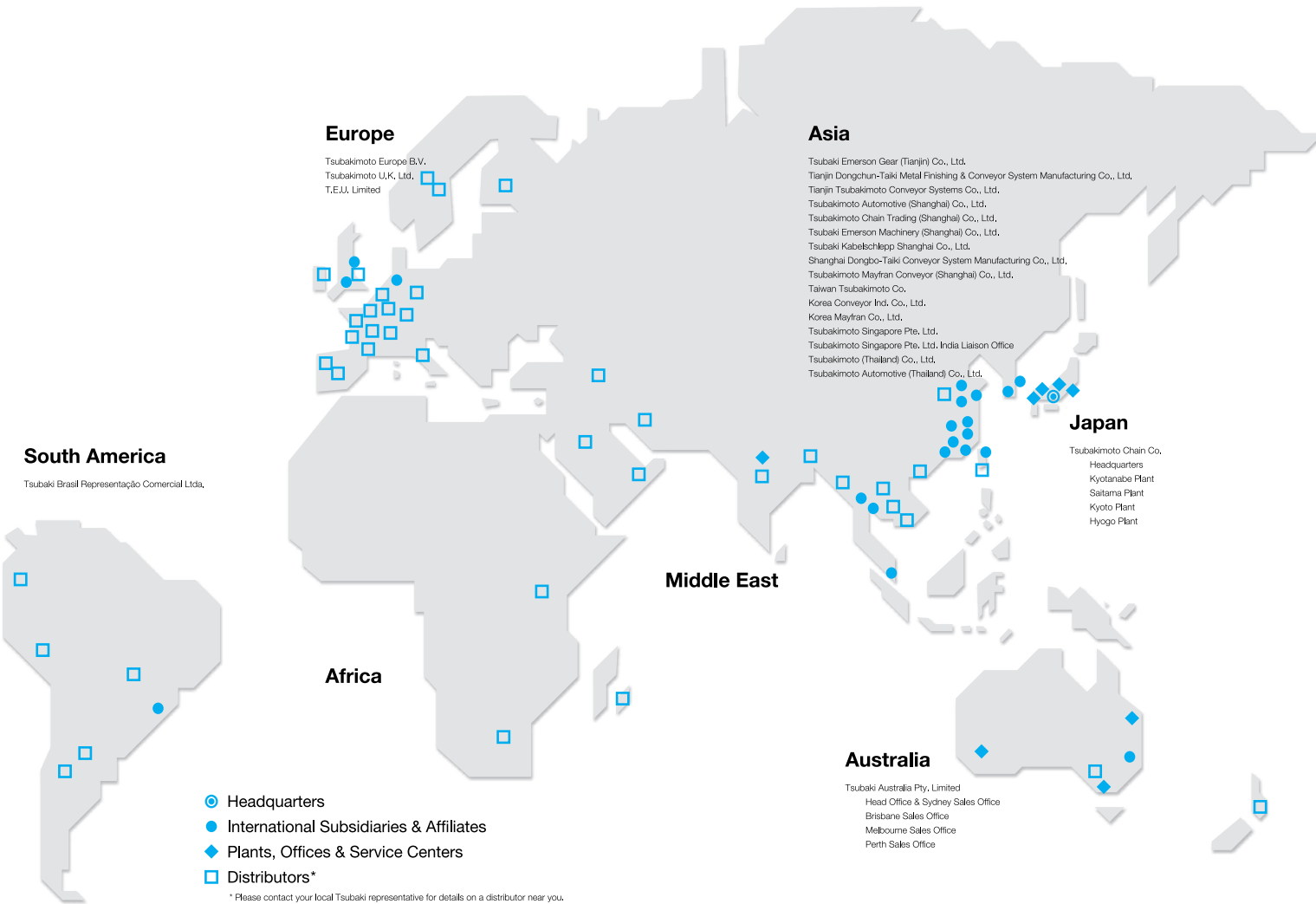


Tsubakimoto Automotive (Shanghai) Co., Ltd.



A manufacturing infrastructure that lets you forget international borders – the large scale on which Tsubaki’s services operate makes sure your global business ventures are successful.

Through 28 production centers and 35 Group companies worldwide, we will deliver full back-up and rapid response to your local needs anywhere on the globe.



UST Portland Plant



UST Holyoke Plant



UST Sandusky Plant



UST Chicopee Plant



Tsubakimoto Singapore Pte. Ltd.



Tsubakimoto Automotive (Thailand) Co., Ltd.



Taiwan Tsubakimoto Co.



Tsubaki Australia Pty. Limited

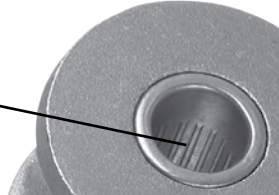
ASME (ANSI) STANDARD DRIVE CHAIN

When innovation really matters

Tsubaki's Patented Ring Coining Generates Unsurpassed Connecting Link Strength



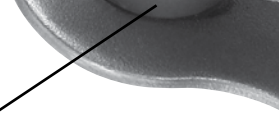
Tsubaki's Patented Lube Groove Bushing Extends Wear Life and Performance



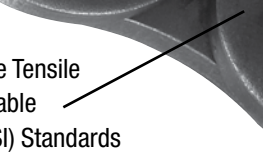
Precision Riveting Process Helps to Withstand Side Load Impact

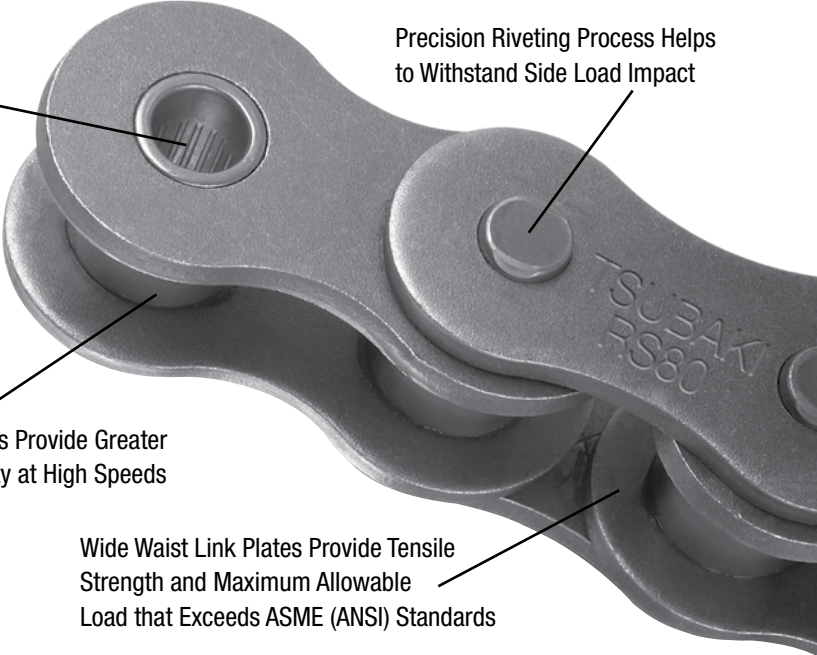


Long Lasting Solid Rollers Provide Greater Fatigue Life and Durability at High Speeds

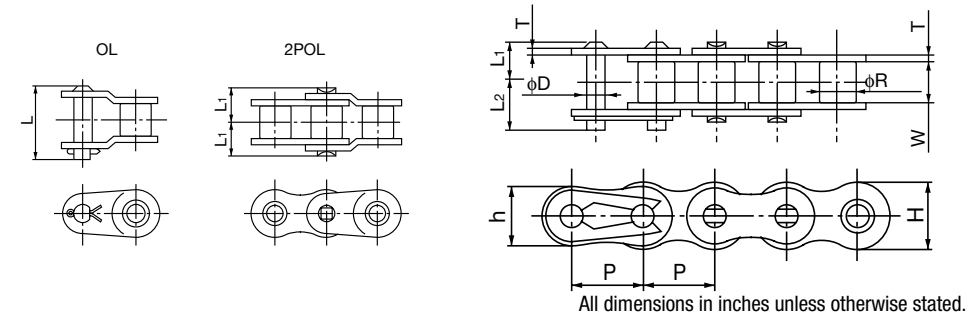


Wide Waist Link Plates Provide Tensile Strength and Maximum Allowable Load that Exceeds ASME (ANSI) Standards





Single Pitch

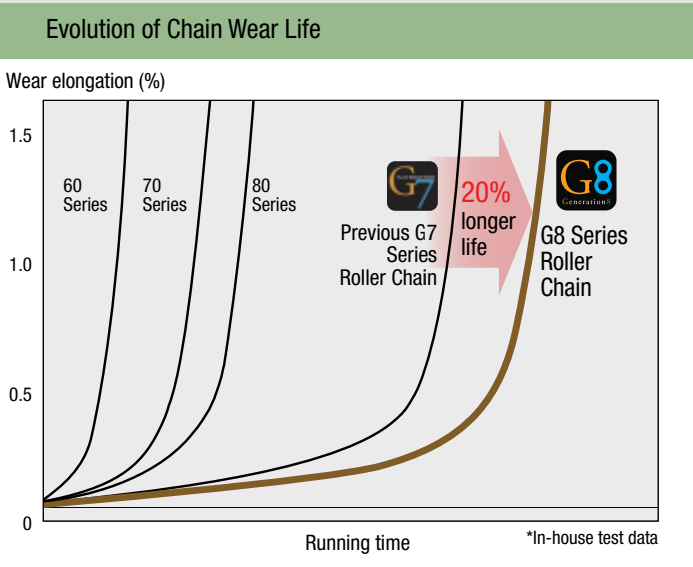


Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin					Transverse Pitch C	ASME (ANSI) Std. Minimum Tensile Strength (lbs.)	Tsubaki Minimum Tensile Strength (lbs.)	Tsubaki Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T	Height H	Height h	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂	Offset Pin Length L						
Single Strand																	
40	0.500	0.312	0.313	0.059	0.472	0.409	0.156	0.717	0.325	0.392	0.709	-	3,120	3,960	4,290	810	0.43
50	0.625	0.400	0.375	0.079	0.591	0.512	0.200	0.874	0.406	0.469	0.886	-	4,880	6,380	7,040	1,430	0.70
60	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.087	0.506	0.581	1.110	-	7,030	9,020	9,900	1,980	1.03
80	1.000	0.625	0.625	0.126	0.949	0.819	0.313	1.398	0.640	0.758	1.417	-	12,500	16,060	17,600	3,300	1.78
100	1.250	0.750	0.750	0.157	1.185	1.024	0.376	1.677	0.778	0.900	1.748	-	19,530	23,980	26,400	5,060	2.67
120	1.500	0.875	1.000	0.189	1.425	1.228	0.437	2.118	0.980	1.138	2.197	-	28,120	33,220	37,400	6,820	3.97
140	1.750	1.000	1.000	0.220	1.661	1.433	0.500	2.307	1.059	1.248	2.343	-	38,280	43,340	48,400	9,020	5.02
160	2.000	1.125	1.250	0.252	1.898	1.638	0.563	2.705	1.254	1.451	2.795	-	50,000	57,200	62,700	11,880	6.77
180	2.250	1.406	1.406	0.281	2.134	1.843	0.687	3.075	1.404	1.671	3.173	-	63,280	75,460	82,940	13,640	9.01
200	2.500	1.562	1.500	0.315	2.374	2.047	0.781	3.299	1.535	1.764	3.437	-	78,120	95,700	105,600	16,060	11.05
240	3.000	1.875	1.875	0.374	2.850	2.457	0.937	4.071	1.886	2.185	4.201	-	112,500	139,700	154,000	22,220	16.42
Double Strand																	
40-2	0.500	0.312	0.313	0.059	0.472	0.409	0.156	1.283	0.608	0.675	1.319	0.567	6,240	7,920	8,580	1,380	0.85
50-2	0.625	0.400	0.375	0.079	0.591	0.512	0.200	1.594	0.762	0.833	1.646	0.713	9,760	12,760	14,080	2,420	1.39
60-2	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.988	0.955	1.033	2.071	0.898	14,060	18,040	19,800	3,360	2.04
80-2	1.000	0.625	0.625	0.126	0.949	0.819	0.313	2.551	1.217	1.335	2.657	1.154	25,000	32,120	35,200	5,610	3.53
100-2	1.250	0.750	0.750	0.157	1.185	1.024	0.376	3.091	1.484	1.606	3.209	1.409	39,060	47,960	52,800	8,602	5.26
120-2	1.500	0.875	1.000	0.189	1.425	1.228	0.437	3.906	1.874	2.031	4.063	1.787	56,240	66,440	74,800	11,590	7.84
140-2	1.750	1.000	1.000	0.220	1.661	1.433	0.500	4.232	2.022	2.211	4.421	1.925	76,560	86,680	96,800	15,334	9.94
160-2	2.000	1.125	1.250	0.252	1.898	1.638	0.563	5.012	2.407	2.604	5.205	2.303	100,000	114,400	125,400	20,196	13.43
180-2	2.250	1.406	1.406	0.281	2.134	1.843	0.687	5.673	2.707	2.967	5.949	2.591	126,560	150,920	165,880	23,190	17.77
200-2	2.500	1.562	1.500	0.315	2.374	2.047	0.781	6.122	2.947	3.175	6.346	2.819	156,240	191,400	211,200	27,300	21.86
240-2	3.000	1.875	1.875	0.374	2.850	2.457	0.937	7.531	3.618	3.913	7.811	3.457	225,000	279,400	308,000	37,770	32.23
Triple Strand																	
40-3	0.500	0.312	0.313	0.059	0.472	0.409	0.156	1.843	0.892	0.951	1.886	0.567	9,360	11,880	12,870	2,040	1.28
50-3	0.625	0.400	0.375	0.079	0.591	0.512	0.200	2.307	1.118	1.189	2.358	0.713	14,640	19,140	21,120	3,580	2.07
60-3	0.750	0.469	0.500	0.094	0.713	0.614	0.235	2.906	1.404	1.502	2.972	0.898	21,090	27,060	29,700	4,950	3.04
80-3	1.000	0.625	0.625	0.126	0.949	0.819	0.313	3.705	1.795	1.909	3.815	1.154	37,500	48,180	52,800	8,250	5.29
100-3	1.250	0.750	0.750	0.157	1.185	1.024	0.376	4.504	2.191	2.313	4.618	1.409	58,590	71,940	79,200	12,650	7.89
120-3	1.500	0.875	1.000	0.189	1.425	1.228	0.437	5.701	2.772	2.929	5.850	1.787	84,360	99,660	112,200	17,050	11.75
140-3	1.750	1.000	1.000	0.220	1.661	1.433	0.500	6.165	2.986	3.179	6.350	1.925	114,840	130,020	145,200	22,550	14.87
160-3	2.000	1.125	1.250	0.252	1.898	1.638	0.563	7.319	3.561	3.758	7.508	2.303	150,000	171,600	188,100	29,700	20.11
180-3	2.250	1.406	1.406	0.281	2.134	1.843	0.687	8.276	4.004	4.272	8.539	2.591	189,840	226,578	288,420	34,100	25.61
200-3	2.500	1.562	1.500	0.315	2.374	2.047	0.781	8.945	4.360	4.585	9.173	2.819	234,360	287,100	316,800	40,150	32.84
240-3	3.000	1.875	1.875	0.374	2.850	2.457	0.937	10.984	5.348	5.636	11.272	3.457	337,500	419,100	462,000	55,550	47.97

Note: 25, 35, 42 and 43 are also available. All sizes available up to six strands. Spring clip type connecting links will be provided for 25 to 60 unless otherwise specified.

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!



Our Latest Innovation –
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.

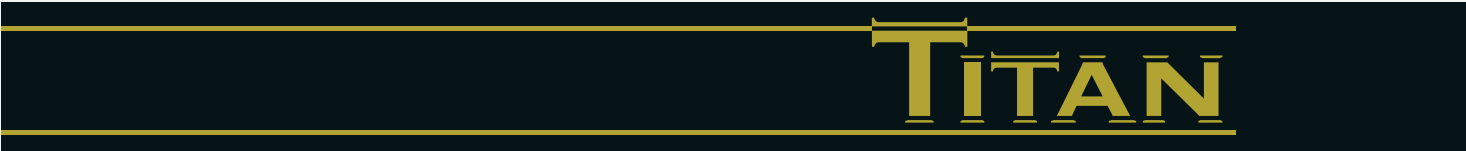


TITAN DRIVE CHAIN

Application: Chip Conveyor Drive
Savings: \$4,926.00
Tsubaki solution: Critical drive in a confined remote location, replacement time is 3 hours. Speed and contamination. Installing Titan increased life from 7.5 to 29 months.

It really mattered to this Tsubaki customer

COST SAVINGS!



Hold your Application to a Gold Standard

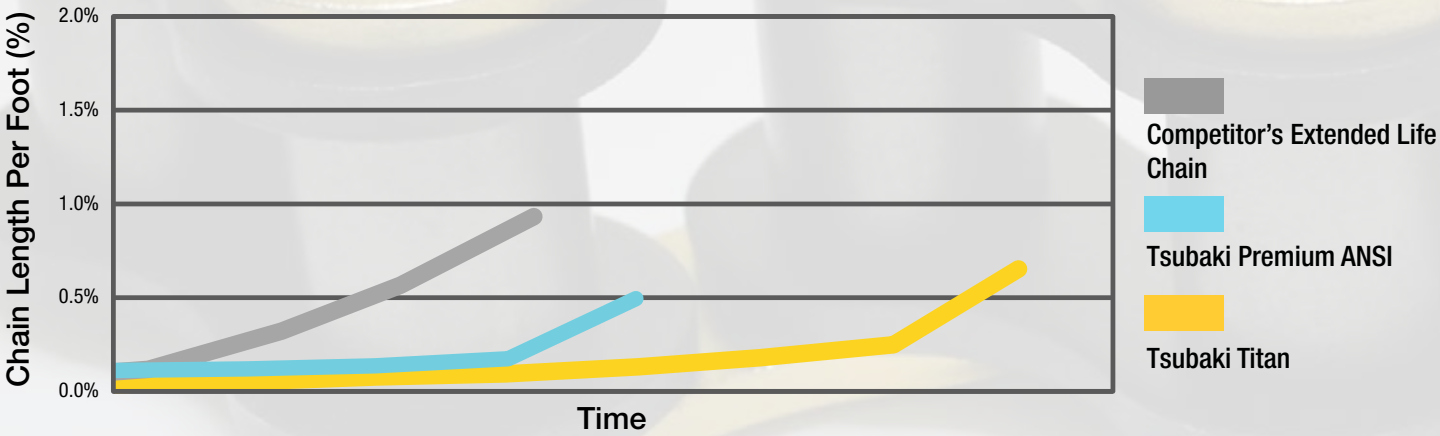
Titan chain integrates the latest advancements from Tsubaki's research and development to increase the wear life of roller chains in high speed and harsh environments. Our Titan chain incorporates the best features of our standard ASME/ANSI chain coupled with new and unique features that will outperform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

Tsubaki Titan Chain Offers Distinct Advantages

Titan provides a harder surface, lowering friction pin which limits the wear between the pin and bushing area. Titan chain has been tested against other manufacturer's chains and the results are obvious, Titan chain extends wear life and outperforms the competition in similar environments.



Competitive Testing Wear Results



Titan Chain Construction

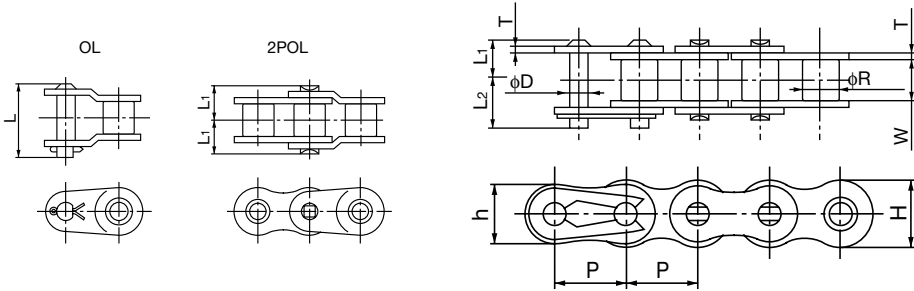
- 1. **Special Coated Pins** - Provide an extra hard, low friction surface limiting the wear between the pin and bushing area, significantly extending wear life, and providing robust performance even in high debris environments.
- 2. **Zinc Coated Pin Link Plates and Black Oxide Roller Link Plates** - 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 longer service life in your most demanding applications.

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

Titan Single Pitch



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin				Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)	Number of links per 10 feet
				Thickness T	Height H	Height h	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂					
Single Strand															
60TT	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.087	0.506	0.581	-	9,900	1,980	1.03	160
80TT	1.000	0.625	0.625	0.126	0.949	0.819	0.313	1.398	0.640	0.758	-	17,600	3,300	1.78	120
100TT	1.250	0.750	0.750	0.157	1.185	1.024	0.376	1.677	0.778	0.900	-	27,200	5,060	2.67	96
120TT	1.500	0.875	1.000	0.189	1.425	1.228	0.437	2.118	0.980	1.138	-	39,600	6,820	3.97	80
140TT	1.750	1.000	1.000	0.220	1.661	1.433	0.500	2.307	1.059	1.248	-	52,800	9,020	5.02	68
Double Strand															
60TT-2	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.988	0.955	1.033	0.898	19,800	3,360	2.04	160
80TT-2	1.000	0.625	0.625	0.126	0.949	0.819	0.313	2.551	1.217	1.335	1.154	35,200	5,610	3.53	120
100TT-2	1.250	0.750	0.750	0.157	1.185	1.024	0.376	3.091	1.484	1.606	1.409	47,400	8,602	5.26	96
120TT-2	1.500	0.875	1.000	0.189	1.425	1.228	0.437	3.906	1.874	2.031	1.787	79,200	11,590	7.84	80
140TT-2	1.750	1.000	1.000	0.220	1.661	1.433	0.500	4.232	2.022	2.211	1.925	105,600	15,334	9.94	68

Note: Horsepower ratings for Titan chain are the same as the identical size of Tsubaki Standard ASME (ANSI) roller chain

LAMBDA SELF-LUBRICATING DRIVE CHAIN

Application: Star Feeder
Savings: \$5,557.00
Tsubaki solution: Previous chain elongated due to lack of maintenance/lubrication. Chain failed causing downtime after 2 months. Self-lubricated Lambda lasted 30 months.

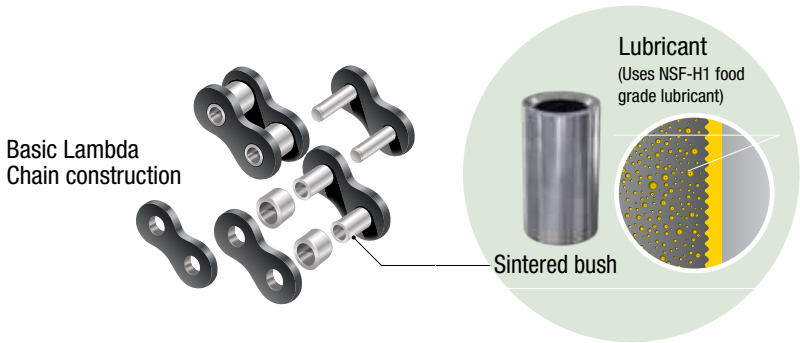
It really mattered to this Tsubaki customer

COST SAVINGS!



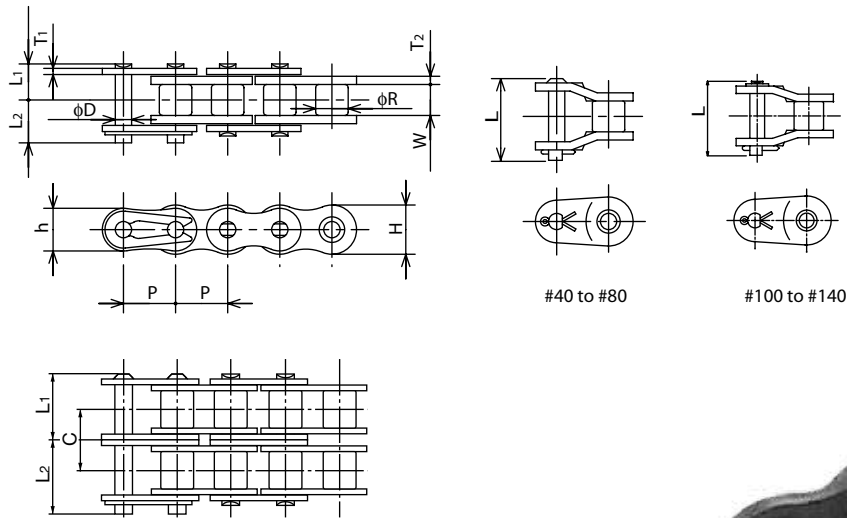
G8 Series Lambda Chain increases productivity and saves money.

Improved the oil-impregnated sintered bush material and processing methods. Improved the oil used in the sintered bushes.



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

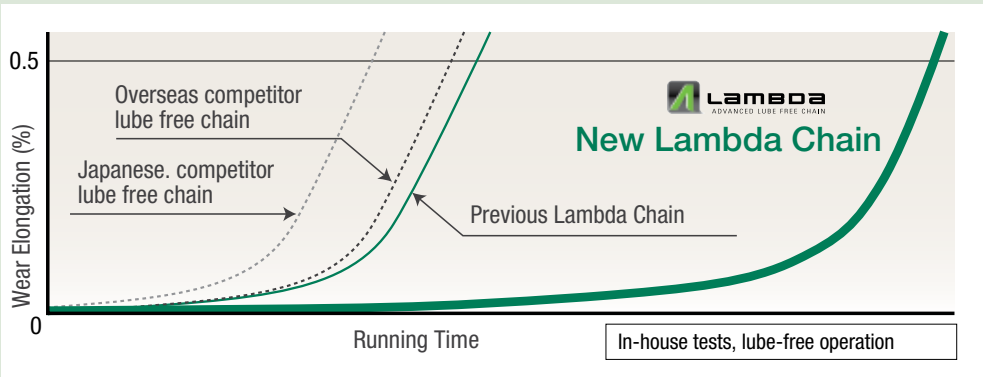
Single Pitch Lambda Drive Chain



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

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

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



Tsubaki Lambda Chain

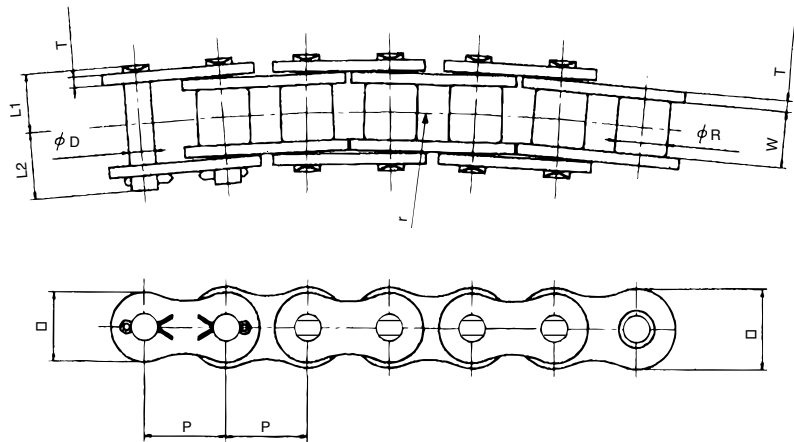
Tsubaki is a pioneer in the industry, being the first to develop a roller chain that uses special oil impregnated bushes. Since first being introduced in 1988, Lambda Chain has gained an outstanding reputation in a variety of industries and applications. It is capable of meeting a wide range of customer 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.

All dimensions in inches unless otherwise stated.

Carbon Steel Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate				Pin					Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)	Maximum Allowable Speed (ft./min.)
				Thickness T1	Thickness T2	Height H	Height h	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂	Offset Pin Length L					
Single Strand																	
40LAM	0.500	0.312	0.297	0.059	0.079	0.472	0.409	0.156	0.757	0.346	0.411	0.787	-	4,290	810	0.47	492
50LAM	0.625	0.400	0.365	0.079	0.094	0.591	0.512	0.200	0.913	0.423	0.490	0.945	-	7,040	1,430	0.74	443
60LAM	0.750	0.469	0.483	0.094	0.126	0.713	0.614	0.235	1.157	0.541	0.616	1.260	-	9,900	1,980	1.15	394
80LAM	1.000	0.625	0.609	0.126	0.157	0.949	0.819	0.313	1.472	0.675	0.797	1.571	-	17,600	3,300	1.86	295
100LAM	1.250	0.750	0.736	0.157	0.189	1.185	1.024	0.376	1.752	0.813	0.939	1.870	-	26,400	5,060	2.88	262
120LAM	1.500	0.875	0.974	0.189	0.220	1.425	1.228	0.437	2.193	1.014	1.179	2.323	-	37,400	6,820	4.29	164
140LAM	1.750	1.000	0.974	0.220	0.252	1.661	1.433	0.500	2.358	1.091	1.268	2.508	-	48,400	9,020	5.43	164
Double Strand (Heavy)																	
40-2HLAM	0.500	0.312	0.297	0.079	0.079	0.472	0.409	0.156	1.443	0.689	0.754		0.645	8,580	1,380	0.94	492
50-2HLAM	0.625	0.400	0.365	0.094	0.094	0.591	0.512	0.200	1.717	0.825	0.892		0.776	14,080	2,420	1.49	443
60-2HLAM	0.750	0.469	0.483	0.126	0.126	0.713	0.614	0.235	2.244	1.085	1.159		1.028	19,800	3,370	2.30	394
80-2HLAM	1.000	0.625	0.609	0.157	0.157	0.949	0.819	0.313	2.827	1.362	1.465		1.283	35,200	5,610	3.71	295
100-2HLAM	1.250	0.750	0.736	0.189	0.189	1.185	1.024	0.376	3.362	1.628	1.734		1.535	52,800	8,600	5.76	262

CURVED LAMBDA SELF-LUBRICATING DRIVE CHAIN

Curved Lambda Drive Chain



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Diameter R	Width Between Inner Link Plates W	Link Plate			Pin			Radius r	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approximate Weight (lbs./ft.)
				Thickness T	Height H	Height h	Length L ₁ +L ₂	Length L ₁	Length L ₂				
40CUL	0.500	0.312	0.313	0.059	0.472	0.409	0.717	0.333	0.384	16	2,770	420	0.41
50CUL	0.625	0.400	0.375	0.079	0.591	0.512	0.866	0.406	0.461	20	4,310	640	0.68
60CUL	0.750	0.469	0.500	0.094	0.713	0.614	1.083	0.510	0.573	24	6,250	900	0.94
80CUL	1.000	0.625	0.625	0.125	0.949	0.819	1.448	0.659	0.789	31.5	11,000	1,565	1.66

X-LAMBDA SELF-LUBRICATING DRIVE CHAIN

When cleanliness really matters

Long Life Lambda Chain(X-Lambda Chain) (Patented)

The inclusion of oil-impregnated felt seals between link plates significantly improves the wear resistance of standard Lambda Chain. Ideal for environments where even longer replacement intervals compared to standard Lambda Chain are required.

Ultra long life without additional lubrication: The combination of a special oil-impregnated bush and felt seal further extends service life.

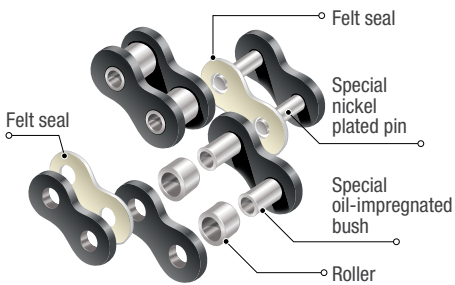
Food grade lubricant: Sintered bushes use NSF-H1 conforming lubricant.

Compatibility: Compatible with standard Lambda Chains. However, as the overall pin length is longer than with Lambda Chain, check that there will be no interference with the machinery or other equipment.

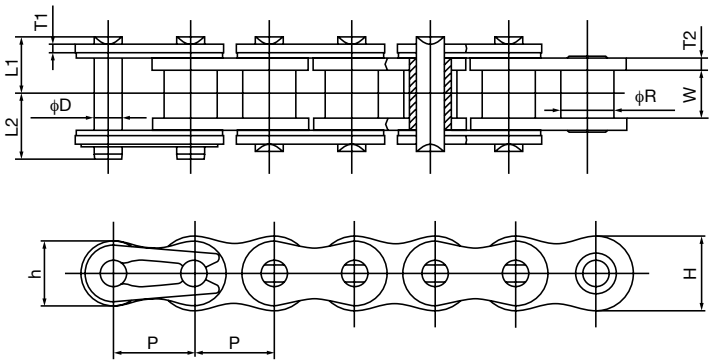
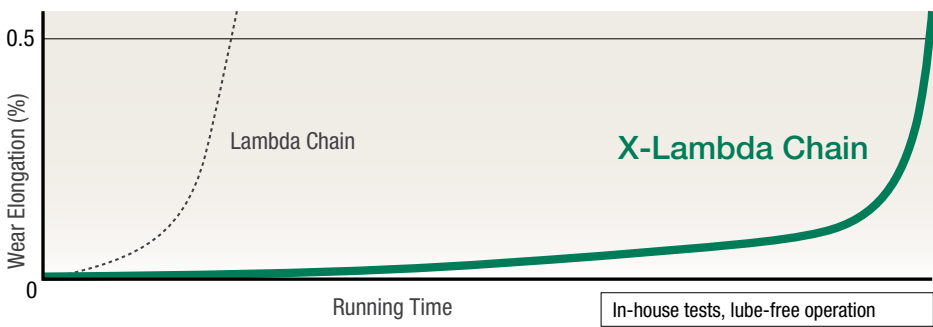
Operating temperature range: -10°C to 60°C. Contact a Tsubaki representative regarding use in temperatures over 60°C.

Sprocket: Can use Standard sprockets.

Basic Construction



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



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate				Pin				Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)	Maximum Allowable Speed (ft./min)
				Thickness T ₁	Thickness T ₂	Height H	Height h	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂				
40DX	0.500	0.312	0.297	0.059	0.079	0.472	0.409	0.156	0.807	0.370	0.437	4,290	810	0.47	492
50DX	0.625	0.400	0.365	0.079	0.094	0.591	0.512	0.200	0.965	0.449	0.516	7,040	1,430	0.74	443
60DX	0.750	0.469	0.483	0.094	0.126	0.713	0.614	0.235	1.232	0.583	0.650	9,900	1,980	1.15	394
80DX	1.000	0.625	0.609	0.126	0.157	0.949	0.819	0.313	1.543	0.720	0.823	17,600	3,300	1.86	295
100DX	1.250	0.750	0.736	0.157	0.189	1.185	1.024	0.376	1.823	0.858	0.965	26,400	5,060	2.88	262
120DX	1.500	0.875	0.974	0.189	0.220	1.425	1.228	0.437	2.262	1.051	1.211	37,400	6,820	4.29	164

Note: X-Lambda has no offset links.

SUPER SERIES CHAIN

Application: Outdoor Log Skinner at a Boardmill
Savings: \$16,057.00
Tsubaki solution: Original installation used standard drive chain. High loads caused failure after only 2.5 months. Chain section was done by Tsubaki selecting 120-2Super resulting in 6.5 months life.

It really mattered to this Tsubaki customer

COST SAVINGS!

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. Where space to put the chain is limited. A SUPER Series Chain 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.

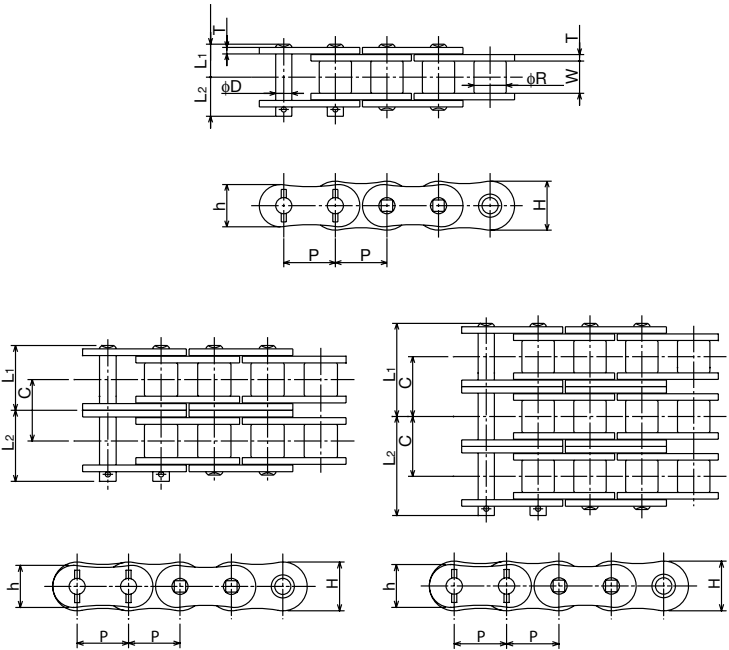
Super Chain

40% higher maximum allowable load than Tsubaki premium chain.

HT Chain

20% higher tensile strength than Tsubaki premium chain.

Super Series Chain



All dimensions in inches unless otherwise stated.

Comparison of Tensile Strength and Maximum Allowable Load

Super Series

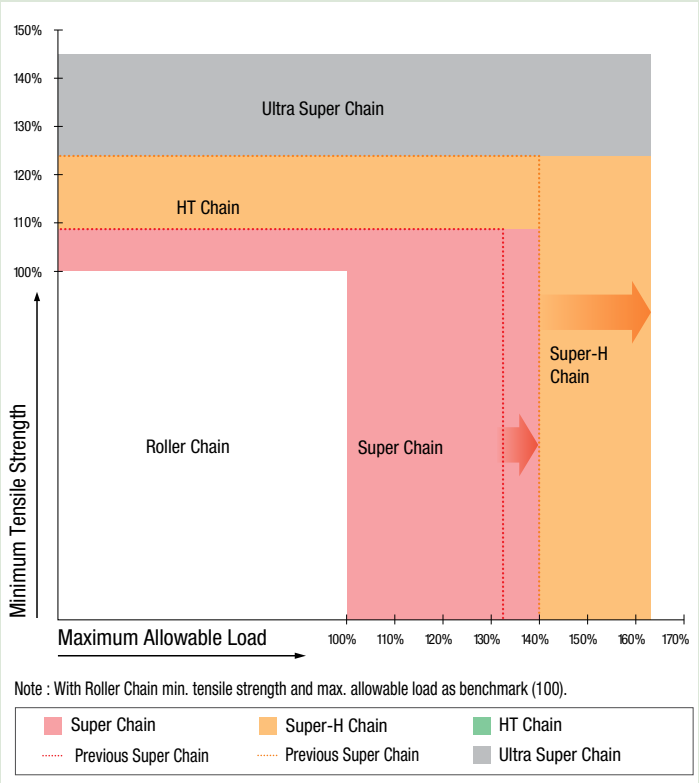
5-10% higher maximum allowable load than the previous series!

HT Series

Twice the wear life of the previous series!
Slip fit connecting links now available!

Super-H Series

20% higher maximum allowable load than the previous series!



Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin				Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T	Height H	Height h	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂				
Single Strand														
80SUPER	1.000	0.625	0.625	0.126	0.949	0.819	0.313	1.398	0.640	0.758	-	19,140	4,180	1.9
100SUPER	1.250	0.750	0.750	0.157	1.185	1.024	0.376	1.677	0.778	0.900	-	28,600	6,820	2.9
120SUPER	1.500	0.875	1.000	0.189	1.425	1.228	0.437	2.118	0.980	1.138	-	41,800	8,800	4.2
140SUPER	1.750	1.000	1.000	0.220	1.661	1.433	0.500	2.307	1.059	1.248	-	55,000	12,100	5.4
160SUPER	2.000	1.125	1.250	0.252	1.898	1.638	0.563	2.705	1.254	1.451	-	70,400	15,840	7.2
200SUPER	2.500	1.562	1.500	0.315	2.374	2.047	0.781	3.299	1.535	1.764	-	113,300	21,120	11.8
240SUPER	3.000	1.875	1.875	0.374	2.850	2.457	0.937	4.071	1.886	2.185	-	165,000	29,700	17.2
Double Strand														
80-2SUPER	1.000	0.625	0.625	0.126	0.949	0.819	0.313	2.551	1.217	1.335	1.154	38,280	7,106	3.8
100-2SUPER	1.250	0.750	0.750	0.157	1.185	1.024	0.376	3.091	1.484	1.606	1.409	57,200	11,594	5.6
120-2SUPER	1.500	0.875	1.000	0.189	1.425	1.228	0.437	3.906	1.874	2.031	1.787	83,600	14,990	8.3
140-2SUPER	1.750	1.000	1.000	0.220	1.661	1.433	0.500	4.232	2.022	2.211	1.925	110,000	20,570	10.7
160-2SUPER	2.000	1.125	1.250	0.252	1.898	1.638	0.563	5.012	2.407	2.604	2.303	140,800	26,928	14.4
200-2SUPER	2.500	1.562	1.500	0.315	2.374	2.047	0.781	6.122	2.947	3.175	2.819	226,600	35,904	23.4
240-2SUPER	3.000	1.875	1.875	0.374	2.850	2.457	0.937	7.531	3.618	3.913	3.457	330,000	50,490	34.0
Triple Strand														
80-3SUPER	1.000	0.625	0.625	0.126	0.949	0.819	0.313	3.705	1.795	1.909	1.154	57,420	10,450	5.6
100-3SUPER	1.250	0.750	0.750	0.157	1.185	1.024	0.376	4.504	2.191	2.313	1.409	85,800	17,050	8.4
120-3SUPER	1.500	0.875	1.000	0.189	1.425	1.228	0.437	5.701	2.772	2.929	1.787	125,400	22,000	12.5
140-3SUPER	1.750	1.000	1.000	0.220	1.661	1.433	0.500	6.165	2.986	3.179	1.925	165,000	30,250	16.0
160-3SUPER	2.000	1.125	1.250	0.252	1.898	1.638	0.563	7.319	3.561	3.758	2.303	211,200	39,600	21.5
200-3SUPER	2.500	1.562	1.500	0.315	2.374	2.047	0.781	8.720	4.360	4.585	2.819	339,900	52,800	35.1
240-3SUPER	3.000	1.875	1.875	0.374	2.850	2.457	0.937	10.697	5.348	5.636	3.457	495,000	74,250	51.0

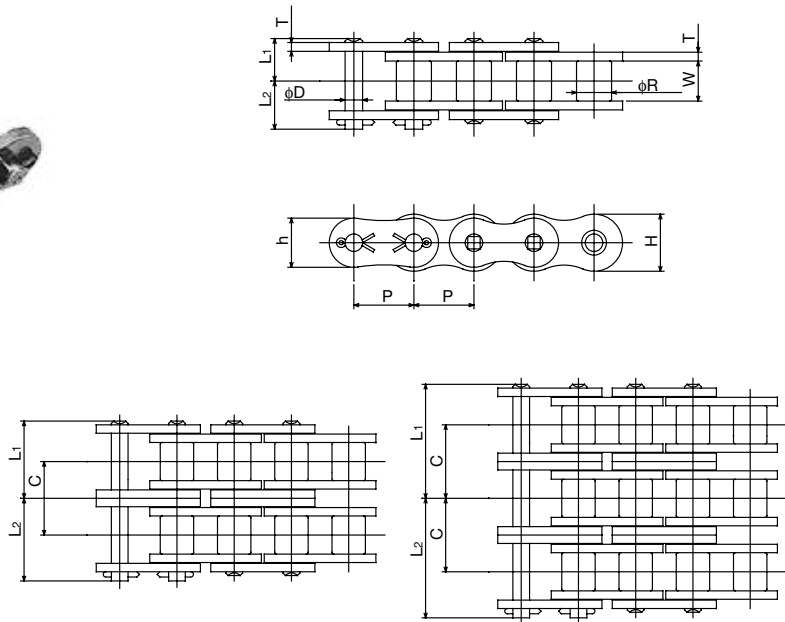
Notes:
1. Four pitch offset link is available for single strand.
2. Riveted type chain will be provided unless otherwise specified. Roll pin type chain will be provided upon requested.
3. Semi press-fit type connecting links will be supplied.

HT SERIES CHAIN

SUPER-H
SERIES CHAIN

When strength really matters

HT Series Chain

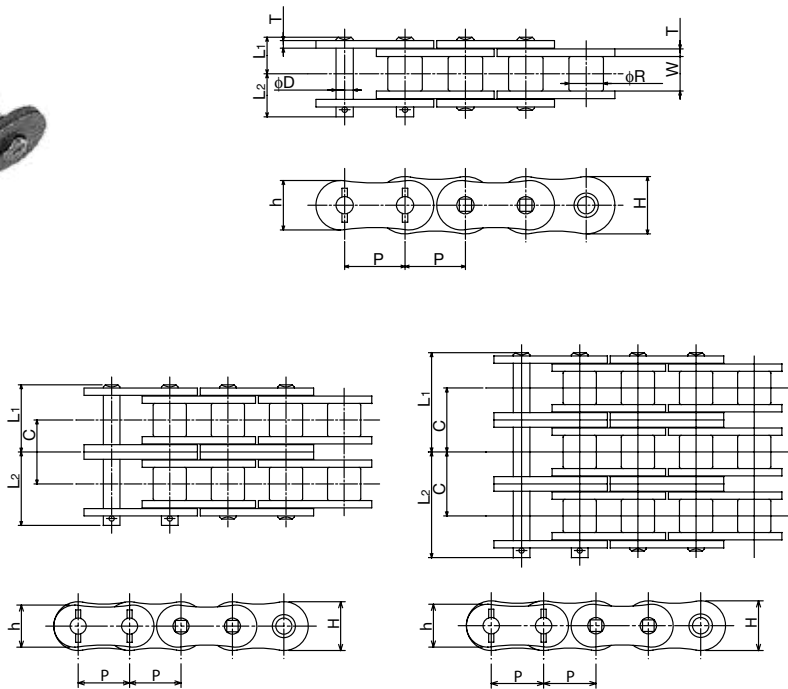


All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin				Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T	Height H	Height h	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂				
Single Strand														
80HT	1.000	0.625	0.625	0.157	0.949	0.819	0.313	1.543	0.720	0.823	-	20,900	3,630	2.1
100HT	1.250	0.750	0.750	0.189	1.185	1.024	0.376	1.823	0.858	0.965	-	31,900	5,500	3.1
120HT	1.500	0.875	1.000	0.220	1.425	1.228	0.437	2.264	1.061	1.203	-	42,900	7,260	4.4
140HT	1.750	1.000	1.000	0.252	1.661	1.433	0.500	2.441	1.138	1.303	-	56,100	9,570	5.5
160HT	2.000	1.125	1.250	0.281	1.898	1.638	0.563	2.850	1.337	1.514	-	71,500	12,540	7.4
200HT	2.500	1.562	1.500	0.374	2.374	2.047	0.781	3.583	1.689	1.894	-	125,400	17,600	12.3
240HT	3.000	1.875	1.875	0.500	2.850	2.457	0.937	4.610	2.157	2.453	-	198,000	25,300	19.5
Double Strand														
80-2HT	1.000	0.625	0.625	0.157	0.949	0.819	0.313	2.827	1.362	1.465	1.283	41,800	6,100	4.1
100-2HT	1.250	0.750	0.750	0.189	1.185	1.024	0.376	3.366	1.630	1.736	1.539	63,800	9,350	6.1
120-2HT	1.500	0.875	1.000	0.220	1.425	1.228	0.437	4.189	2.024	2.165	1.925	85,800	12,340	8.6
140-2HT	1.750	1.000	1.000	0.252	1.661	1.433	0.500	4.506	2.163	2.343	2.055	112,200	16,280	11.0
160-2HT	2.000	1.125	1.250	0.281	1.898	1.638	0.563	5.295	2.555	2.740	2.437	143,000	21,310	14.6
200-2HT	2.500	1.562	1.500	0.374	2.374	2.047	0.781	6.667	3.230	3.437	3.083	250,800	29,920	24.4
240-2HT	3.000	1.875	1.875	0.500	2.850	2.457	0.937	8.591	4.146	4.445	3.984	396,000	43,010	38.4
Triple Strand														
80-3HT	1.000	0.625	0.625	0.157	0.949	0.819	0.313	4.114	2.006	2.108	1.283	62,700	9,080	6.2
100-3HT	1.250	0.750	0.750	0.189	1.185	1.024	0.376	4.906	2.402	2.504	1.539	95,700	13,750	9.1
120-3HT	1.500	0.875	1.000	0.220	1.425	1.228	0.437	6.118	2.986	3.132	1.925	128,700	18,150	13.0
140-3HT	1.750	1.000	1.000	0.252	1.661	1.433	0.500	6.551	3.195	3.356	2.055	168,300	23,930	16.4
160-3HT	2.000	1.125	1.250	0.281	1.898	1.638	0.563	7.732	3.778	3.955	2.437	214,500	31,350	21.9
200-3HT	2.500	1.562	1.500	0.374	2.374	2.047	0.781	9.756	4.774	4.982	3.083	376,200	44,000	36.7
240-3HT	3.000	1.875	1.875	0.500	2.850	2.457	0.937	12.583	6.144	6.439	3.984	594,000	63,250	57.3

- Notes:
- Riveted type chain will be provided unless otherwise specified. Cottered type chain is available upon request.
 - Semi press-fit connecting links will be supplied as standard. Slip-fit connecting links are also available upon request.

Super-H Series Chain



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin				Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T	Height H	Height h	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂				
Single Strand														
80HSUPER	1.000	0.625	0.625	0.157	0.949	0.819	0.313	1.543	0.720	0.823	-	22,000	4,620	2.2
100HSUPER	1.250	0.750	0.750	0.189	1.185	1.024	0.376	1.823	0.858	0.965	-	32,560	7,260	3.3
120HSUPER	1.500	0.875	1.000	0.220	1.425	1.228	0.437	2.264	1.061	1.203	-	44,000	9,460	4.7
140HSUPER	1.750	1.000	1.000	0.252	1.661	1.433	0.500	2.441	1.138	1.303	-	57,200	12,760	6.0
160HSUPER	2.000	1.125	1.250	0.281	1.898	1.638	0.563	2.851	1.337	1.514	-	72,600	16,500	7.9
200HSUPER	2.500	1.500	1.500	0.374	2.374	2.047	0.781	3.583	1.689	1.894	-	134,200	22,400	13.2
240HSUPER	3.000	1.875	1.875	0.500	2.850	2.457	0.937	4.610	2.157	2.453	-	206,800	31,240	20.5
Double Strand														
80-2HSUPER	1.000	0.625	0.625	0.157	0.949	0.819	0.313	2.823	1.358	1.465	1.283	44,000	7,854	4.4
100-2HSUPER	1.250	0.750	0.750	0.189	1.185	1.024	0.376	3.366	1.630	1.736	1.539	65,120	12,342	6.4
120-2HSUPER	1.500	0.875	1.000	0.220	1.425	1.228	0.437	4.179	2.014	2.165	1.925	88,000	16,082	9.1
140-2HSUPER	1.750	1.000	1.000	0.252	1.661	1.433	0.500	4.506	2.163	2.343	2.055	114,400	21,692	11.7
160-2HSUPER	2.000	1.125	1.250	0.281	1.898	1.638	0.563	5.295	2.555	2.740	2.437	145,200	28,050	15.4
200-2HSUPER	2.500	1.562	1.500	0.374	2.374	2.047	0.781	6.667	3.230	3.437	3.083	268,400	38,080	25.9
240-2HSUPER	3.000	1.875	1.875	0.500	2.850	2.457	0.937	8.591	4.146	4.445	3.984	413,600	53,108	40.2
Triple Strand														
80-3HSUPER	1.000	0.625	0.625	0.157	0.949	0.819	0.313	4.106	1.998	2.108	1.283	66,000	11,550	6.6
100-3HSUPER	1.250	0.750	0.750	0.189	1.185	1.024	0.376	4.904	2.400	2.504	1.539	97,680	18,150	9.6
120-3HSUPER	1.500	0.875	1.000	0.220	1.425	1.228	0.437	6.086	2.954	3.132	1.925	132,000	23,650	13.6
140-3HSUPER	1.750	1.000	1.000	0.252	1.661	1.433	0.500	6.547	3.191	3.356	2.055	171,600	31,900	17.4
160-3HSUPER	2.000	1.125	1.250	0.281	1.898	1.638	0.563	7.711	3.756	3.955	2.437	217,800	41,250	23.0
200-3HSUPER	2.500	1.562	1.500	0.374	2.374	2.047	0.781	9.743	4.761	4.982	3.083	402,600	56,000	38.5
240-3HSUPER	3.000	1.875	1.875	0.500	2.850	2.457	0.937	12.544	6.105	6.439	3.984	620,400	78,100	59.9

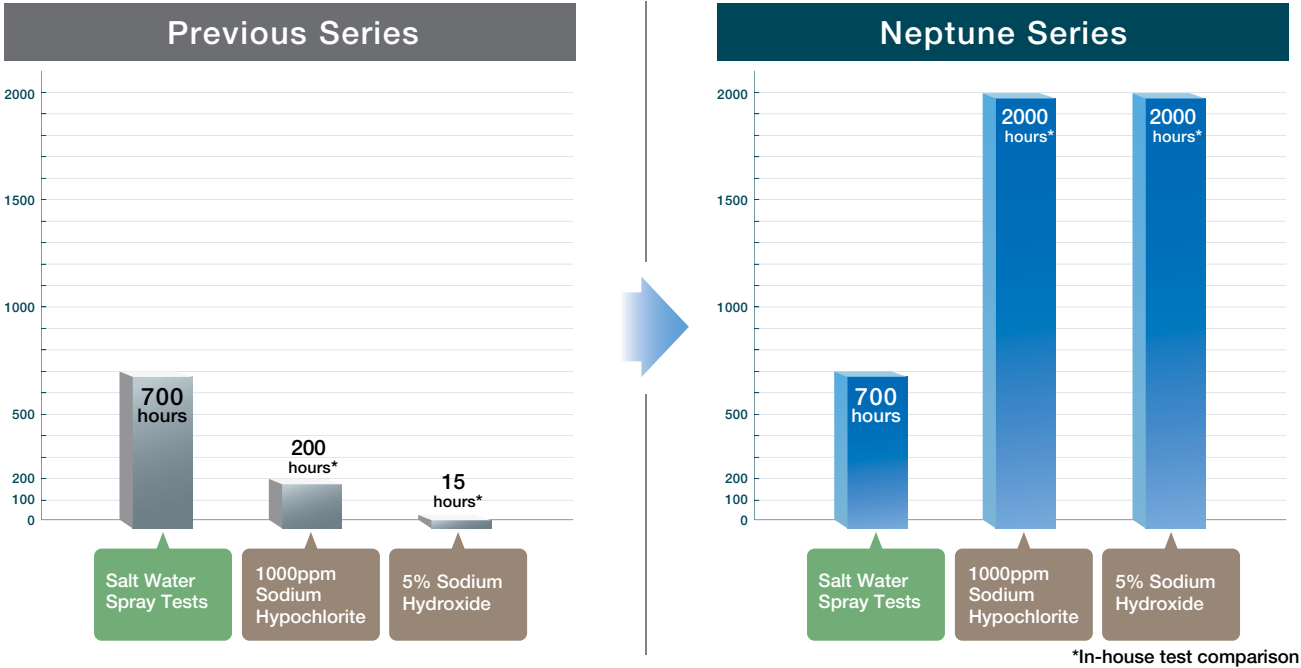
- Notes:
- Offset links are not available.
 - Riveted type chain will be provided unless otherwise specified. Roll pin type chain will be provided upon request.
 - Semi press-fit type connecting links will be supplied.

NEPTUNE DRIVE CHAIN

When durability really matters

Tough against water and alkalis

Corrosion Resistant Chain



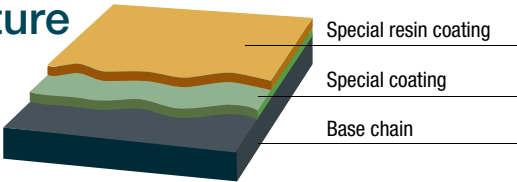
Superb Corrosion Resistance

	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

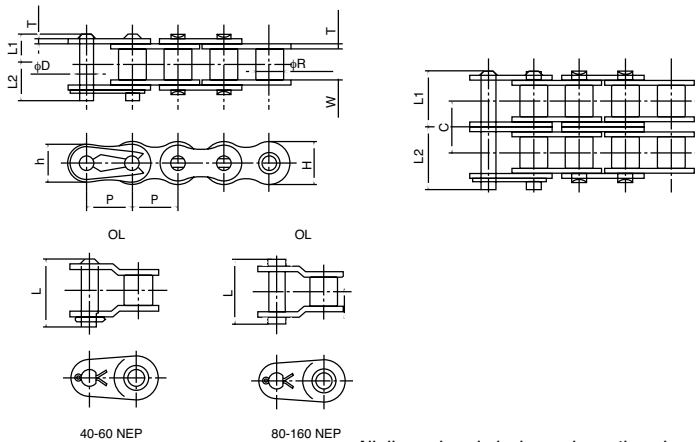
*Salt water spray tests in accordance with JIS-Z-2371.

New Surface Treatment Structure

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



Neptune
Anti-Corrosive Drive Chain



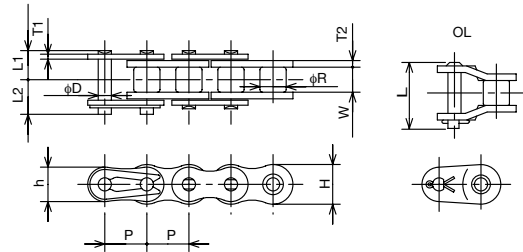
All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. D	Width Between Inner Link Plates W	Link Plate			Pin					Transverse Pitch C	Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)	Number of links per 10 feet
				Thickness T	Height H	Height h	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂	Offset Pin Length L					
Single Strand																
60NEP	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.087	0.506	0.581	1.110	-	9,900	1,980	1.03	160
80NEP	1.000	0.625	0.625	0.126	0.949	0.819	0.313	1.398	0.640	0.758	1.504	-	17,600	3,300	1.78	120
100NEP	1.250	0.750	0.750	0.157	1.185	1.024	0.376	1.677	0.778	0.900	1.799	-	26,400	5,060	2.67	96
120NEP	1.500	0.875	1.000	0.189	1.425	1.228	0.437	2.118	0.980	1.138	2.276	-	37,400	6,820	3.98	80
140NEP	1.750	1.000	1.000	0.220	1.661	1.433	0.500	2.307	1.059	1.248	2.496	-	48,400	9,020	5.02	68
Double Strand																
60-2NEP	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.988	0.955	1.033	2.071	0.898	19,800	3,360	2.04	160
80-2NEP	1.000	0.625	0.625	0.126	0.949	0.819	0.313	2.551	1.217	1.335	2.657	1.154	35,200	5,610	3.53	120
100-2NEP	1.250	0.750	0.750	0.157	1.185	1.024	0.376	3.091	1.484	1.606	3.209	1.409	52,800	8,602	5.26	96
120-2NEP	1.500	0.875	1.000	0.189	1.425	1.228	0.437	3.906	1.874	2.031	4.063	1.787	74,800	11,590	7.84	80
140-2NEP	1.750	1.000	1.000	0.220	1.661	1.433	0.500	4.232	2.022	2.211	4.421	1.925	96,800	15,334	9.94	68

Neptune Lambda Drive Chain

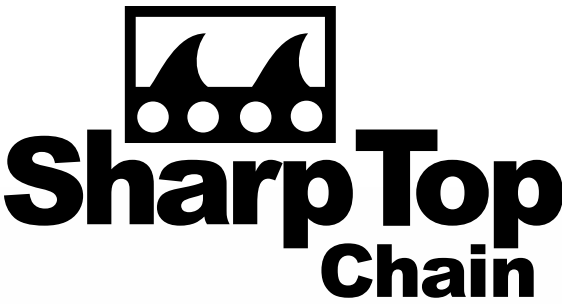
Anti-Corrosive Self-Lubricating Drive Chain

Lambda chain uses special oil impregnated bushings to provide lubrication and to prolong wear life.



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate				Pin					Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)	Number of links per 10 feet	Maximum Allowable Speed (ft./min.)
				Thickness T ₁	Thickness T ₂	Height H	Height h	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂	Offset Pin Length L					
60NEPLAM	0.750	0.469	0.483	0.094	0.126	0.713	0.614	0.235	1.159	0.539	0.620	1.260	9,900	1,980	1.15	160	394
80NEPLAM	1.000	0.625	0.609	0.126	0.157	0.949	0.819	0.313	1.472	0.675	0.797	1.571	17,600	3,300	1.86	120	295
100NEPLAM	1.250	0.750	0.736	0.157	0.189	1.185	1.024	0.376	1.752	0.813	0.939	1.870	26,400	5,060	2.88	96	262
120NEPLAM	1.500	0.875	0.974	0.189	0.220	1.425	1.228	0.437	2.193	1.014	1.179	2.323	37,400	6,820	4.29	80	164
140NEPLAM	1.750	1.000	0.974	0.220	0.252	1.661	1.433	0.500	2.358	1.091	1.268	2.508	48,400	9,020	5.43	68	164



Sharp Top Chains
An essential component in the primary and secondary breakdown of a sawmill operation. You need premium performance to resist high wear and shock loads. Tsubaki has created the perfect specification to exceed your expectation.

Common Problem:
Worn Tips

Solution:
Induction Hardened Tips
Worn tips are a major cause for chain replacement. Tsubaki's new design results in a 20% increase in wear resistance without compromising strength, offered as standard. Expect more from Tsubaki.

NEW!

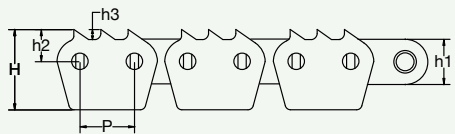


SHARP TOP CHAIN

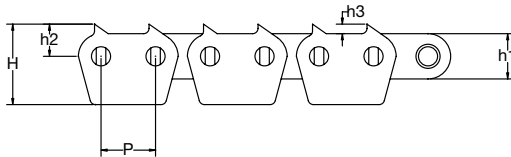
When grip really matters

NEW!

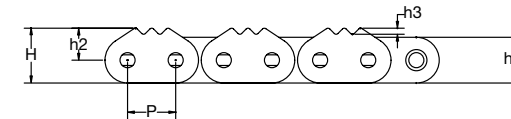
RF32B STYLE
Size: RF32B



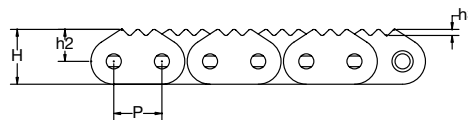
RF32B STYLE
Size: RF32B



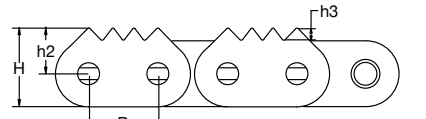
ST STYLE
Sizes: 60, 80,
100, 120



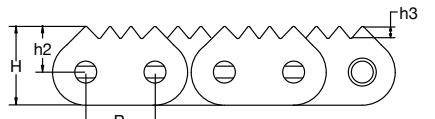
ST-ALL STYLE
Sizes: 60, 80



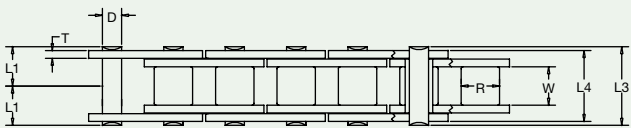
ST-4P STYLE
Size: 80



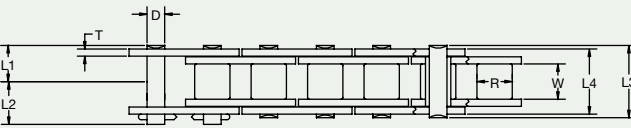
ST-4P ALL STYLE
Size: 80



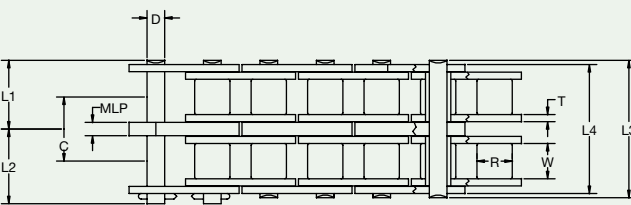
SIZE: RF32B



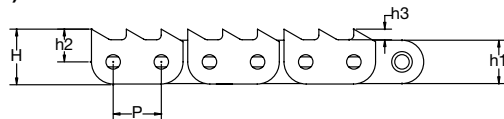
SIZES: 60, 80, 100, 120



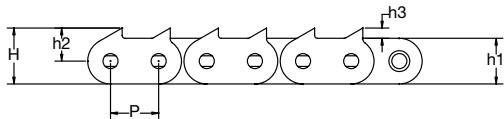
SIZES: 60-2, 80-2, 100-2



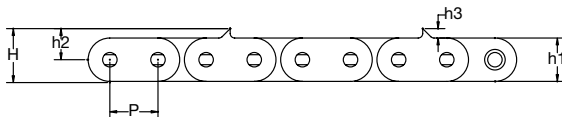
SL STYLE (RF100)
Size: 100



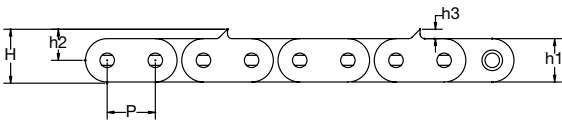
SL STYLE (RF80)
Size: 80



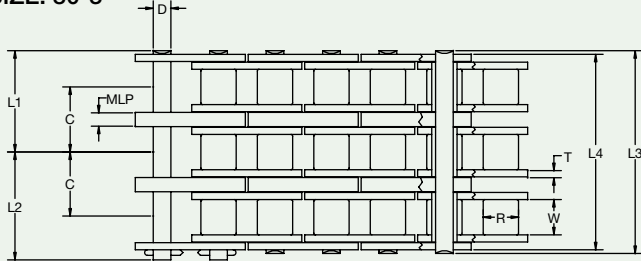
P4P-AD STYLE (shown here) and P8P-AD STYLE
(as above except point on every 8th pitch)
Sizes: 80, 100



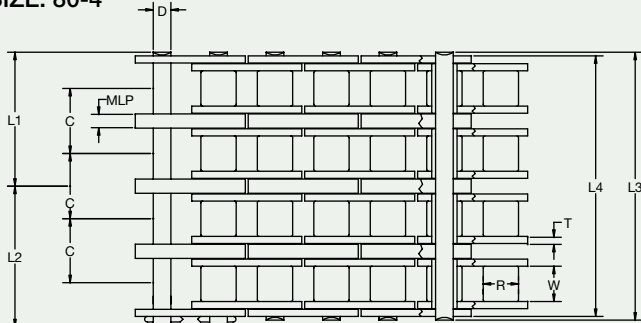
P4P-SD STYLE
Sizes: 80,100



SIZE: 80-3



SIZE: 80-4

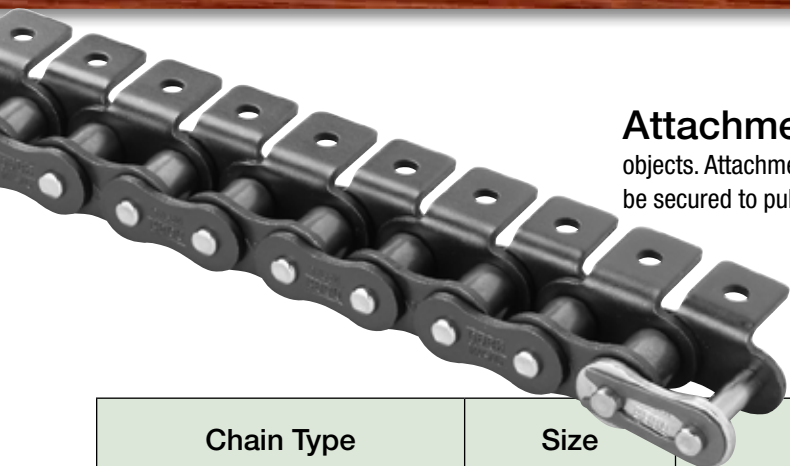


Sharp Top Chain Specifications

All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate						Pin						Trans- verse Pitch C	Approx. Weight (lbs./ ft.)
				Thickness T	Middle Link Plate Thickness MLP	Height H	Height h ₁	Height h ₂	Tooth Height h ₃	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂	Riveted Pin Length (L ₁ x 2) L ₃	Length Ref. L ₄		
2 straight points on every second pitch & extended flat side bar																	
RF32B-1-SL-2P	2.000	1.150	1.220	0.248	-	2.953	1.661	1.181	0.807	0.701	-	1.264	-	2.305	2.305	-	
RF32B-1-SL-2P-NAR	2.000	1.150	0.900	0.220	-	2.953	1.661	1.181	0.807	0.701	-	1.020	-	2.137	2.137	-	
3 straight points on every second pitch & extended flat side bar																	
RF32B-1-SL-3P	2.000	1.150	1.220	0.248	-	2.953	1.661	1.181	0.807	0.701	-	1.264	-	2.305	2.305	-	
3 straight points on every second pitch																	
60-1-ST	0.750	0.469	0.500	0.094	-	0.854	0.713	0.498	0.094	0.235	1.087	0.506	0.581	1.012	0.898	-	1.23
60-2-ST	0.750	0.469	0.500	0.094	0.188	0.854	0.713	0.498	0.094	0.235	1.988	0.955	1.033	1.910	1.794	0.898	2.28
80-1-ST	1.000	0.625	0.625	0.126	-	1.143	0.949	0.669	0.177	0.313	1.398	0.640	0.758	1.280	1.138	-	2.14
80-2-ST	1.000	0.625	0.625	0.126	0.236	1.143	0.949	0.669	0.177	0.313	2.540	1.217	1.323	2.434	2.276	1.138	4.21
80-3-ST	1.000	0.625	0.625	0.126	0.252	1.143	0.949	0.669	0.177	0.313	3.704	1.795	1.909	3.590	3.459	1.154	6.36
80-4-ST	1.000	0.625	0.625	0.126	0.252	1.143	0.949	0.669	0.177	0.313	4.862	2.372	2.490	4.744	4.612	1.154	8.47
100-1-ST	1.250	0.750	0.750	0.157	-	1.319	1.126	0.756	0.126	0.376	1.678	0.778	0.900	1.556	1.408	-	3.05
100-2-ST	1.250	0.750	0.750	0.157	0.315	1.319	1.126	0.756	0.126	0.376	3.090	1.484	1.606	2.968	2.818	1.409	6.02
120-1-ST	1.500	0.875	1.000	0.189	-	1.583	1.354	0.906	0.126	0.437	2.118	0.980	1.138	1.960	1.789	-	4.46
3 straight points on every pitch																	
60-1-ST-ALL	0.750	0.469	0.500	0.094	-	0.854	-	0.498	0.094	0.235	1.087	0.506	0.581	1.012	0.898	-	1.26
80-2-ST-ALL	1.000	0.625	0.625	0.126	0.236	1.143	-	0.669	0.177	0.313	2.540	1.217	1.323	2.434	2.276	1.138	4.34
80-3-ST-ALL	1.000	0.625	0.625	0.126	0.252	1.143	-	0.669	0.177	0.313	3.704	1.795	1.909	3.590	3.459	1.154	6.55
80-4-ST-ALL	1.000	0.625	0.625	0.126	0.252	1.143	-	0.669	0.177	0.313	4.862	2.372	2.490	4.744	4.612	1.154	8.73
4 straight points on every second pitch																	
80-1-ST-4P	1.000	0.625	0.625	0.126	-	1.143	0.949	0.669	0.189	0.313	1.398	0.640	0.758	1.280	1.154	-	2.14
80-2-ST-4P	1.000	0.625	0.625	0.126	0.236	1.143	0.949	0.669	0.189	0.313	2.551	1.217	1.335	2.430	2.307	1.154	4.21
80-3-ST-4P	1.000	0.625	0.625	0.126	0.252	1.143	0.949	0.669	0.189	0.313	3.704	1.795	1.909	3.590	3.461	1.154	6.36
4 straight points on every pitch																	
80-2-ST-ALL-4P	1.000	0.625	0.625	0.126	0.252	1.143	-	0.669	0.189	0.313	2.551	1.217	1.335	2.430	2.307	1.154	4.34
80-2-ST-ALL-4P-HD	1.000	0.625	0.625	0.252	0.252	1.143	-	0.669	0.189	0.313	2.807	1.346	1.461	2.692	2.559	1.154	4.9
80-3-ST-ALL-4P	1.000	0.625	0.625	0.126	0.252	1.143	-	0.669	0.189	0.313	3.704	1.795	1.909	3.590	3.461	1.154	6.55
80-4-ST-ALL-4P	1.000	0.625	0.625	0.126	0.252	1.143	-	0.669	0.189	0.313	4.862	2.372	2.490	4.744	4.614	1.154	8.73
3 slasher points on every second pitch																	
100-1-SL-LP	1.250	0.750	0.750	0.157	-	1.425	1.126	0.850	0.299	0.376	1.678	0.778	0.900	1.556	1.408	-	3.14
100-2-SL-LP	1.250	0.750	0.750	0.157	0.315	1.425	1.126	0.850	0.299	0.376	3.090	1.484	1.606	2.968	2.818	1.409	6.2
100-2-SL-HP	1.250	0.750	0.750	0.157	0.315	1.638	1.126	1.063	0.512	0.376	3.090	1.484	1.606	2.968	2.818	1.409	6.64
2 slasher points on every second pitch																	
80-1-SL	1.000	0.625	0.625	0.126	-	1.161	0.949	0.667	0.212	0.313	1.460	0.671	0.789	1.342	1.216	-	2.32
80-2-SL	1.000	0.625	0.625	0.126	0.236	1.161	0.949	0.667	0.212	0.313	2.590	1.236	1.354	2.472	2.276	1.138	4.35
1 opposite slant point on every 4th pitch																	
100-2-P4P-AD	1.250	0.750	0.750	0.157	0.315	1.370	1.126	0.807	0.244	0.376	3.090	1.484	1.606	2.968	2.818	1.409	5.88
1 opposite slant point on every 8th pitch																	
80-2-P8P-AD	1.000	0.625	0.625	0.126	0.236	1.184	0.949	0.709	0.235	0.313	2.540	1.217	1.323	2.434	2.276	1.138	4.09
1 right slant point on every 4th pitch																	
100-2-P4P-SD	1.250	0.750	0.750	0.157	0.315	1.370	1.126	0.807	0.244	0.376	3.090	1.484	1.606	2.968	2.818	1.409	5.88

INTRODUCTION TO CONVEYOR CHAIN & ATTACHMENTS



Attachment Chains add functionality to standard roller chain for conveying objects. Attachments are simple additions to the standard roller chain that allow fixtures to be secured to pull, push, transfer, carry, or otherwise move your lumber.

Chain Type	Size	Attachments			Delivery	
Single Pitch: Standard Lambda	40	K1	WA1 WK1 WSA1 WSK1	WA2 WK2 WSA2 WSK2	1 Week* up to 200 ft. Rush assembly service available, contact your Tsubaki distributor for details.	
	50	SA1				
	60	SK1				
	80	D1				
	100	D3				
Double Pitch, Standard Roller: Standard Lambda	C2040	A1 K1 SA1 SK1 D1 D3	A2 K2 SA2 SK2			
	C2050					
	C2060H					
	C2080H					
	C2100H					
	C2120H					
Double Pitch, Large Roller: Standard Lambda	C2042					
	C2052					
	C2062H					
	C2082H					
	C2102H					
	C2122H					

**Subject to stock availability and prior sale.*

Made-To-Order Attachments

Whether you need to push, carry, pull, drag, drop or position, trust Tsubaki to fabricate and assemble your MTO attachments.

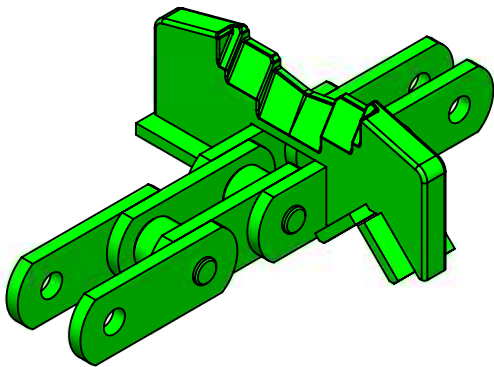


DOUBLE LENGTH INFEEED (DLI)

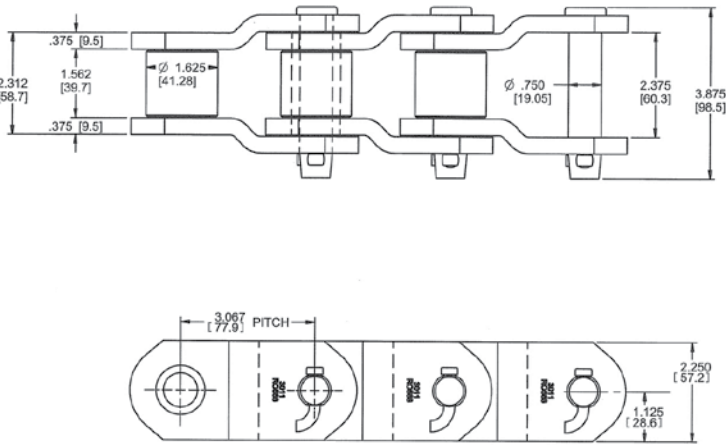
When selection really matters

Double Length Infeed (DLI)

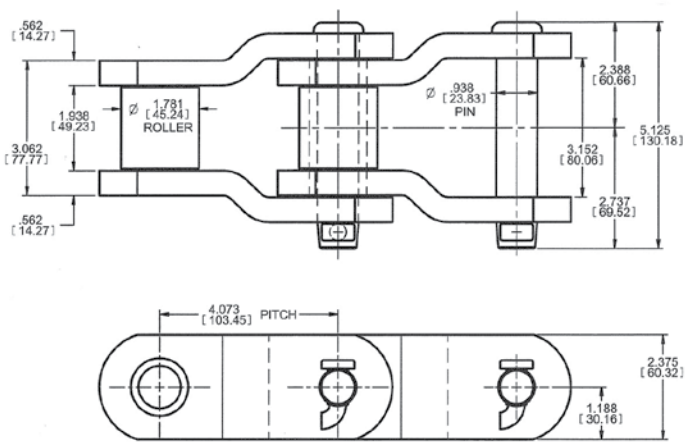
A double length infeed conveyor is a critical sawmill application that cradles the log for scanning and rotation in order to optimize the log for primary breakdown.



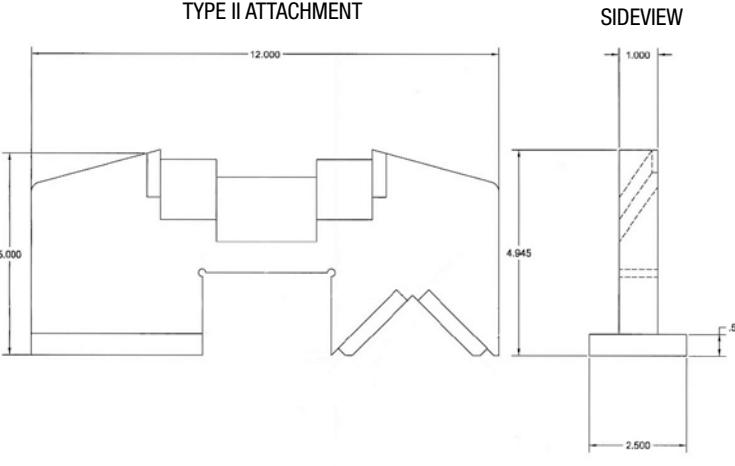
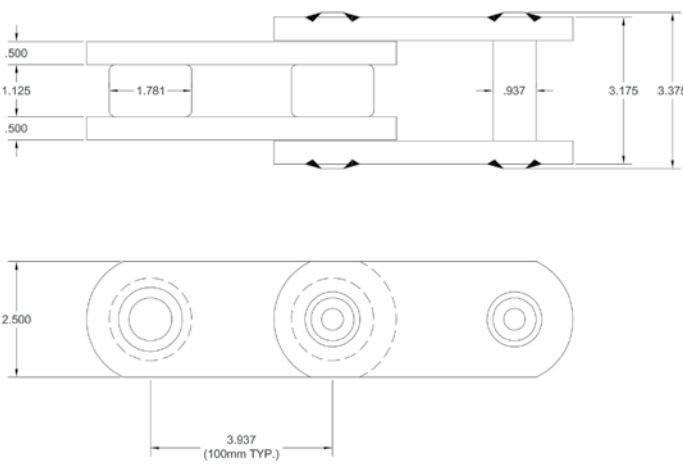
US3011



US1245



100MM

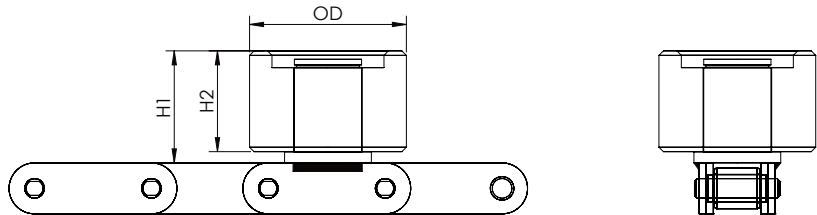


Trimmer Lug

Trimmer Lugs are used to convey sawn wood through the scanner, trimmer and several other operations in a sawmill.

- Standardize operations and reduce inventory on replacement parts.

TL Trimmer Lug



All dimensions in inches unless otherwise stated.

	Roller Style A			Roller Style B		
	H ₁	H ₂	OD	H ₁	H ₂	OD
81X	2.75	2.50	2.75	2.50	2.25	3.50
C2100H	2.75	2.50	2.75	2.50	2.25	3.50
C2080H	2.75	2.50	2.75	2.50	2.25	3.50

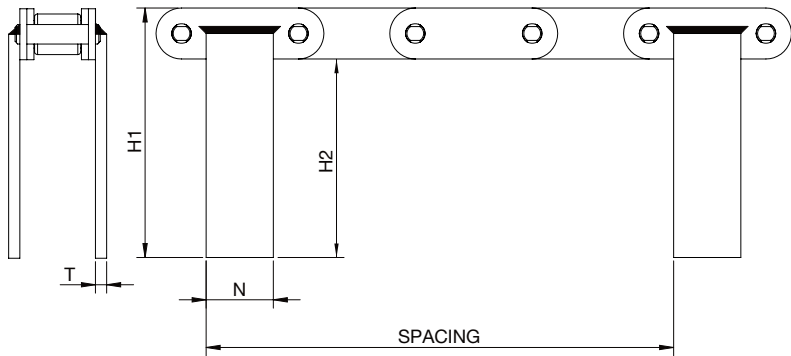
Note: Trimmer Lug will be welded on to the pin link or roller link depending on spacing requirements. Specify standard dimensions (OD or A) when ordering. Tsubaki also offers various sizes of trimmer lug weld-on attachments. Contact Tsubaki for more information.

81XPTLA10L260PMT

How To Order:

How To Order Sell Sheet			
Example	Description		
81X	Chain Size		
P	Tier	Blank	Econo
		P	Premium
		L	Lambda
TL	Attachment Type	TL	Trimmer Lug
A	Roller Type	A	See page 26
		B	See page 26
10L	Attachment Spacing	xxL	Every xxL Link (e.g. 10L = every 10th link) Note: (1) If spacing is even, attachment is supplied on the pin link unless otherwise instructed. If spacing is odd, attachment alternates on the pin link and roller link.
260P	Length	Blank	Supply in 10ft strands
		xxP	xx Pitch Strands (e.g. 260P = 260P Strand) Note: (1) Total chain length should be divisible by the attachment spacing. (2) Chain will be supplied in suitable lengths for shipping with a conn link at each section.
MT	Option	MT – Matched and Tagged strands – Recommended for all multi-strand timed applications. E.g. Scanner, Trimmer, Drop Sorter	

Pusher



Height*	Att Name Part No.	Top of Chain to Top of Attachment	Bottom of Chain to Top of Attachment	Attachment Width	Attachment Thickness
		H ₁	H ₂	N	T
3 3/16	81XPU3LATT	3.188	4.313	1.500	0.250
4 3/16	81XPU4LATT	4.188	5.313	1.500	0.250

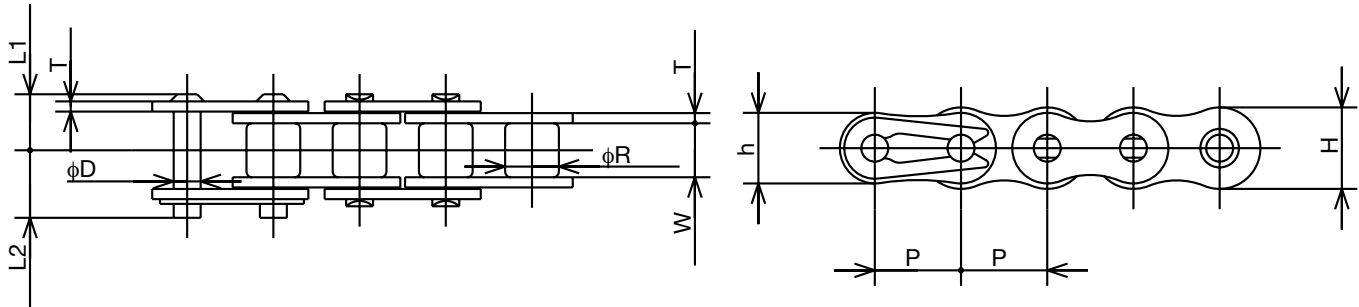
*HEIGHT AS MEASURED FROM TOP OF CHAIN
CUSTOM ATTACHMENTS AVAILABLE UPON REQUEST. CONTACT TSUBAKI WITH YOUR REQUIREMENTS

STANDARD ATTACHMENT CHAIN

When expedience really matters

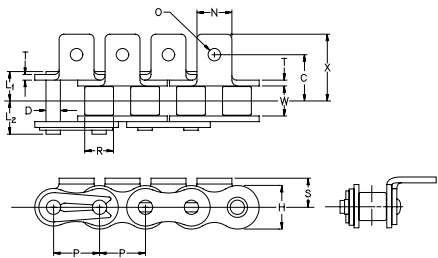
Single Pitch
Standard Attachment Chain

Tsubaki single pitch roller chains may be adapted to conveying applications by the addition of attachments. The standard attachment types include bent or straight type attachments on one or both sides, extended pin and wide contour attachments. Tsubaki stocks a wide variety of assembled chain and components.

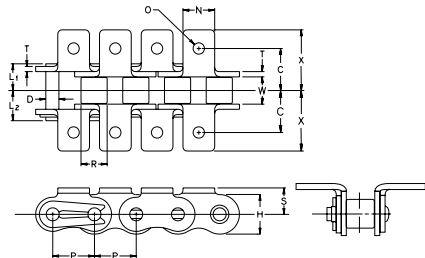


Single Pitch
Standard Attachment Chain

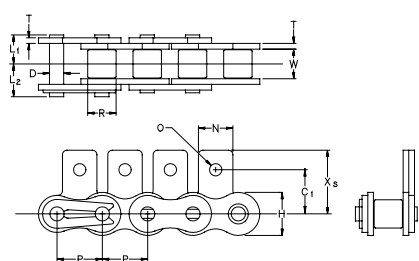
A-1 Attachment



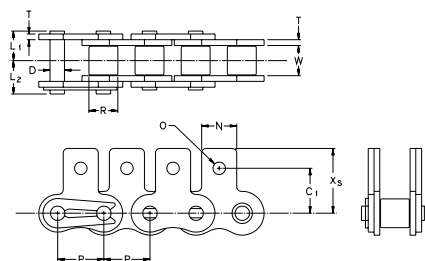
K-1 Attachment



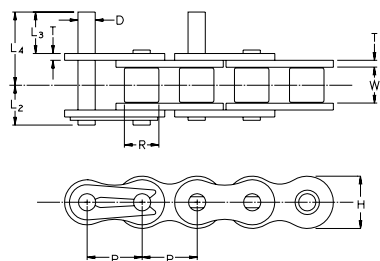
SA-1 Attachment



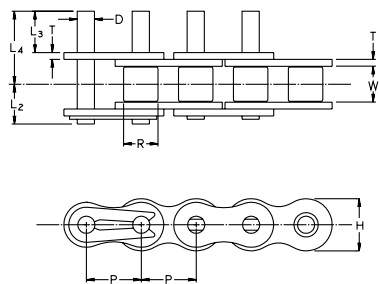
SK-1 Attachment



D-1 Attachment



D-3 Attachment



All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate			Pin				Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	App. Weight (lbs./ft.)
				Thickness T	Height H	Height h	Dia. D	Length L ₁ +L ₂	Length L ₁	Length L ₂			
40	0.500	0.312	0.313	0.060	0.472	0.409	0.156	0.717	0.325	0.392	3,740	590	0.43
50	0.625	0.400	0.375	0.080	0.591	0.512	0.200	0.878	0.406	0.472	6,160	970	0.70
60	0.750	0.469	0.500	0.094	0.713	0.614	0.235	1.087	0.506	0.581	9,020	1,410	1.03
80	1.000	0.625	0.625	0.126	0.949	0.819	0.313	1.398	0.640	0.758	15,400	2,400	1.78
100	1.250	0.750	0.750	0.157	1.185	1.024	0.376	1.677	0.778	0.900	24,200	3,830	2.67
120	1.500	0.875	1.000	0.187	1.425	1.228	0.437	2.118	0.980	1.138	34,000	5,380	3.97
140	1.750	1.000	1.000	0.221	1.661	1.433	0.500	2.307	1.059	1.248	45,900	7,280	5.02
160	2.000	1.125	1.250	0.250	1.898	1.638	0.562	2.705	1.254	1.451	58,000	9,190	6.77

Note: Spring clip type connecting links will be provided for 25 to 60 unless otherwise specified.

All dimensions in inches unless otherwise stated.

Chain Number	Attachment Dimensions									Additional Wt. per Attach. (lbs.)		
	C	C ₁	N	O	S	X	X _s	L ₃	L ₄	A, SA Attach.	K, SK Attach.	D Attach.
25	0.281	0.313	0.220	0.134	0.187	0.421	0.459	-	-	0.001	0.002	-
35	0.375	0.375	0.311	0.102	0.250	0.563	0.573	0.375	0.575	0.002	0.004	0.002
41	0.469	0.500	0.375	0.141	0.281	0.646	0.656	0.375	0.608	0.004	0.007	0.002
40	0.500	0.500	0.375	0.141	0.315	0.701	0.685	0.375	0.659	0.004	0.009	0.002
50	0.625	0.625	0.500	0.205	0.406	0.921	0.907	0.469	0.827	0.007	0.013	0.004
60	0.750	0.720	0.625	0.205	0.469	1.110	1.057	0.563	1.014	0.015	0.031	0.007
80	1.000	0.969	0.750	0.268	0.625	1.441	1.396	0.752	1.333	0.029	0.057	0.015
100	1.250	1.250	1.000	0.343	0.780	1.768	1.732	0.937	1.644	0.057	0.114	0.026
120	1.500	1.437	1.126	0.386	0.906	2.197	2.081	1.126	2.024	0.097	0.194	0.044
140	1.750	1.750	1.375	0.448	1.125	2.420	2.437	1.311	2.264	0.157	0.313	0.066
160	2.000	2.000	1.500	0.516	1.250	2.840	2.750	1.500	2.654	0.214	0.428	0.099

STANDARD ATTACHMENT CHAIN

When convenience really matters

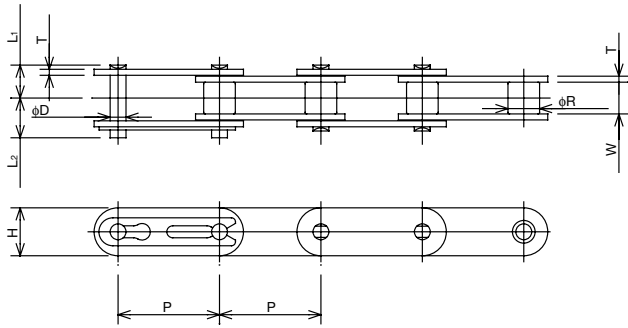
Double Pitch

Standard Attachment Chain

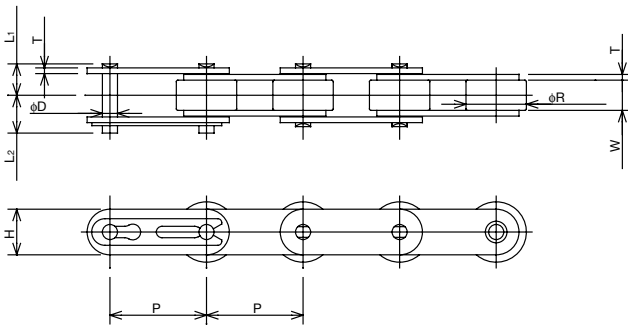
Tsubaki double pitch roller chain may be adapted to conveying applications by the addition of attachments. The standard attachment types include bent or straight type attachments on one or both sides, extended pin and wide contour attachments. Tsubaki stocks a wide variety of assembled chain and components.



Standard Roller Type



Oversize Roller Type



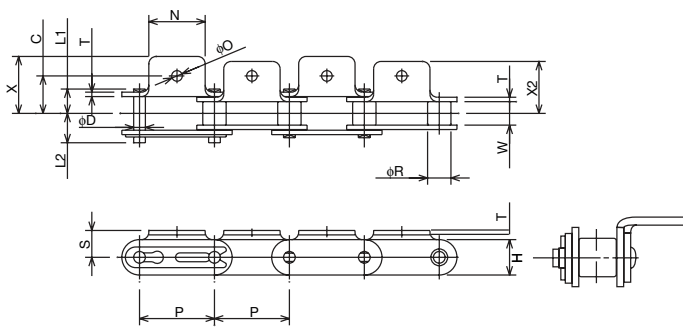
All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Roller Dia. R	Width Between Inner Link Plates W	Link Plate		Pin				Average Tensile Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T	Height H	Dia. D	Length L ₁ + L ₂	Length L ₁	Length L ₂			
Standard Roller Type												
C2040	1.000	0.312	0.313	0.059	0.472	0.156	0.717	0.325	0.392	3,750	590	0.34
C2050	1.250	0.400	0.375	0.079	0.591	0.200	0.878	0.406	0.472	6,170	970	0.56
C2060H	1.500	0.469	0.500	0.126	0.677	0.235	1.224	0.573	0.652	9,040	1,410	1.01
C2080H	2.000	0.625	0.625	0.157	0.906	0.313	1.543	0.720	0.823	15,400	2,400	1.61
C2100H	2.500	0.750	0.750	0.189	1.125	0.376	1.823	0.858	0.965	24,300	3,830	2.37
C2120H	3.000	0.875	1.000	0.219	1.370	0.427	2.240	1.030	1.210	34,000	5,380	3.41
C2160H	4.000	1.125	1.250	0.281	1.897	0.563	2.851	1.337	1.514	58,000	9,190	6.02
Oversize Roller Type												
C2042	1.000	0.625	0.313	0.059	0.472	0.156	0.717	0.325	0.392	3,750	590	0.58
C2052	1.250	0.750	0.375	0.079	0.591	0.200	0.878	0.406	0.472	6,170	970	0.87
C2062H	1.500	0.875	0.500	0.126	0.677	0.235	1.224	0.573	0.652	9,040	1,410	1.47
C2082H	2.000	1.125	0.625	0.157	0.906	0.313	1.543	0.720	0.823	15,400	2,400	2.36
C2102H	2.500	1.563	0.750	0.189	1.125	0.376	1.823	0.858	0.965	24,300	3,830	3.89
C2122H	3.000	1.750	1.000	0.219	1.370	0.427	2.240	1.030	1.210	34,000	5,380	5.46
C2162H	4.000	2.250	1.250	0.281	1.897	0.563	2.851	1.337	1.514	58,000	9,190	9.21

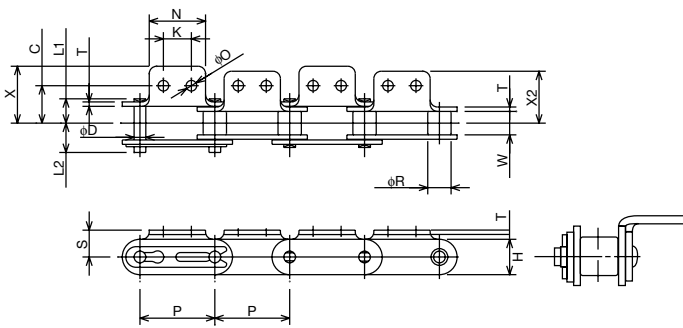
Double Pitch

Standard Attachment Chain

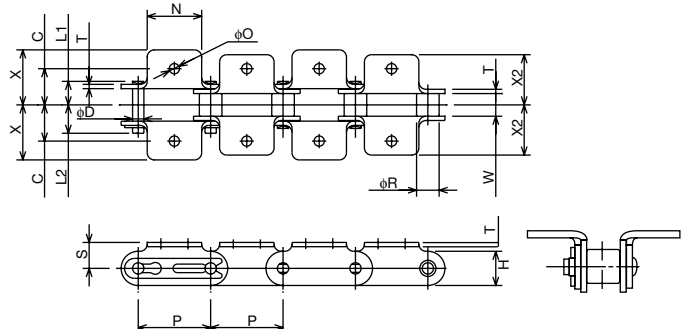
A-1 Attachment



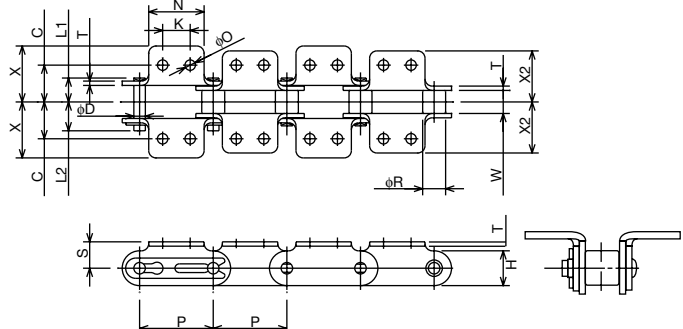
A-2 Attachment



K-1 Attachment



K-2 Attachment



All dimensions in inches unless otherwise stated.

Chain Number	A-1, A-2, K-1 and K-2 Attachment Dimensions							Additional Wt. per Attach. (lbs.)	
	X	X ₂	C	S	K	N	O	A Attachment	K Attachment
C2040	0.760	0.693	0.500	0.358	0.374	0.750	0.141	0.007	0.013
C2050	0.953	0.866	0.625	0.437	0.469	0.937	0.205	0.013	0.026
C2060H	1.240	1.110	0.844	0.579	0.563	1.125	0.205	0.037	0.075
C2080H	1.602	1.441	1.094	0.752	0.752	1.500	0.268	0.070	0.141
C2100H	1.965	1.767	1.313	0.922	0.937	1.875	0.343	0.132	0.265
C2120H	2.390	2.142	1.562	1.093	1.125	2.250	0.386	0.221	0.441
C2160H	3.060	2.760	2.062	1.437	1.500	3.000	0.516	0.448	0.895

STANDARD ATTACHMENT CHAIN

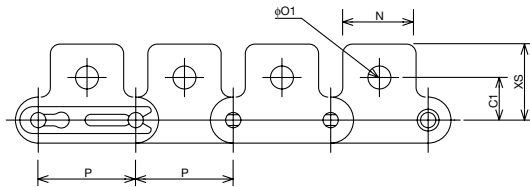
ORDERING ATTACHMENT CHAIN IS EASY!

When value really matters

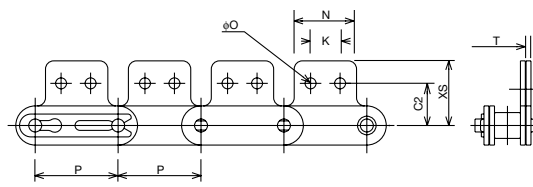
Double Pitch

Standard Attachment Chain

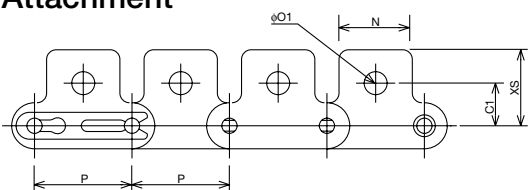
SA-1 Attachment



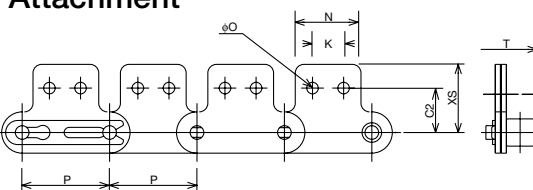
SA-2 Attachment



SK-1 Attachment



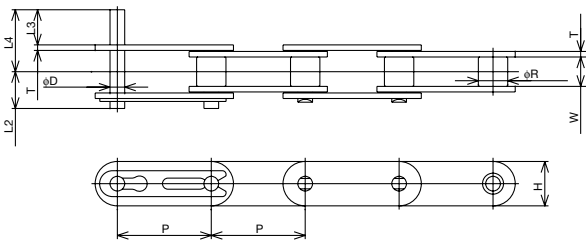
SK-2 Attachment



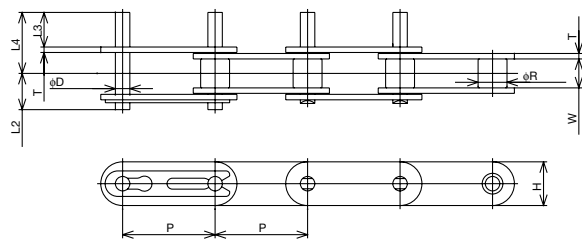
All dimensions in inches unless otherwise stated.

Chain Number	SA-1, SA-2, SK-1 and SK-2 Attachment Dimensions								Additional Wt. per Attach. (lbs.)	
	X _s	C ₁	C ₂	K	N	O	O ₁	T	SA Attachment	SK Attachment
C2040	0.780	0.437	0.535	0.374	0.752	0.142	0.205	0.059	0.007	0.013
C2050	0.969	0.563	0.626	0.469	0.937	0.205	0.268	0.079	0.013	0.026
C2060H	1.205	0.689	0.750	0.563	1.126	0.205	0.343	0.126	0.037	0.075
C2080H	1.594	0.874	1.000	0.752	1.500	0.268	0.406	0.156	0.070	0.141
C2100H	1.984	1.125	1.250	0.938	1.875	0.323	0.563	0.187	0.132	0.265
C2120H	2.361	1.312	1.468	1.125	2.250	0.386	0.578	0.219	0.221	0.441
C2160H	3.093	1.750	2.000	1.500	3.000	0.516	0.771	0.281	0.448	0.895

D-1 Attachment



D-3 Attachment



All dimensions in inches unless otherwise stated.

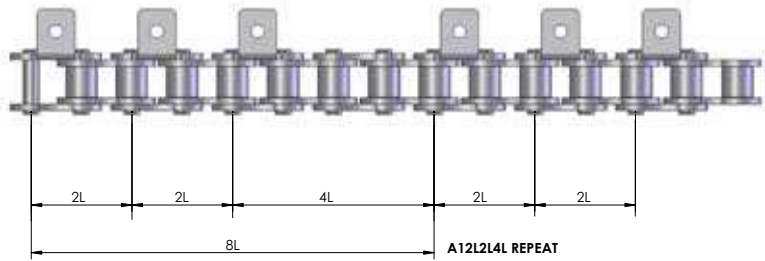
Chain Number	D Attachment Dimensions			Additional Wt. per Attach. (lbs.)	
	D	L ₃	L ₄	D-1 Attachment	D-3 Attachment
C2040	0.156	0.374	0.663	0.002	0.004
C2050	0.200	0.469	0.833	0.004	0.008
C2060H	0.234	0.563	1.083	0.007	0.014
C2080H	0.312	0.752	1.401	0.015	0.030
C2100H	0.375	0.937	1.687	0.026	0.052
C2120H	0.437	1.125	2.062	0.044	0.088
C2160H	0.562	1.500	2.718	0.099	0.198

To order attachment chain, please provide the following:

- 1) Size of chain (40, 50, C2062H)
- 2) Material
- 3) Rivet or Cotter Pin construction
- 4) Type of attachment
- 5) Spacing of attachment

Attachment spacing is counted as being the number of links (both inside and outside) up to and including the next attachment. In the non-standard spacing example to the right, initial spacing is every 2nd (2L) and then every 4th (4L). Each repeating section is 8 pitches (8L).

- 6) Overall length of chain



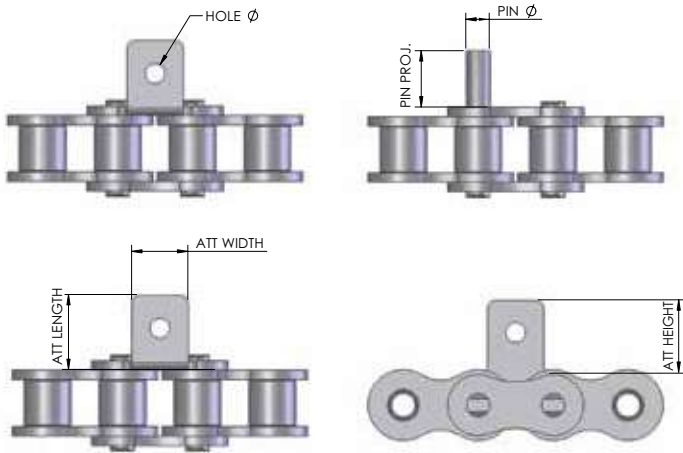
All standard attachment chain orders are to be confirmed with a schematic for the customer's review.

ASME (ANSI) Special Attachments

In addition to providing standard attachment chain, Tsubaki of Canada can modify existing attachments to match your requirements. An example of this could be a shorter-than-standard pin or a larger hole diameter. If modifying standard attachments, delivery can be 1-2 weeks depending on the quantity.

When specifying non-standard attachments, information required is:

- tab length, width and possibly height
- hole diameter and type of hole (threaded, countersunk)
- pin diameter, projection (extension) length, type of end (threaded, circlip groove)



All non-standard attachment quotes will be accompanied by a drawing for customer approval.

IF YOU DON'T SEE WHAT YOU ARE LOOKING FOR – ASK TSUBAKI!

81X CHAIN, 3939-B4 & M900

When choice really matters



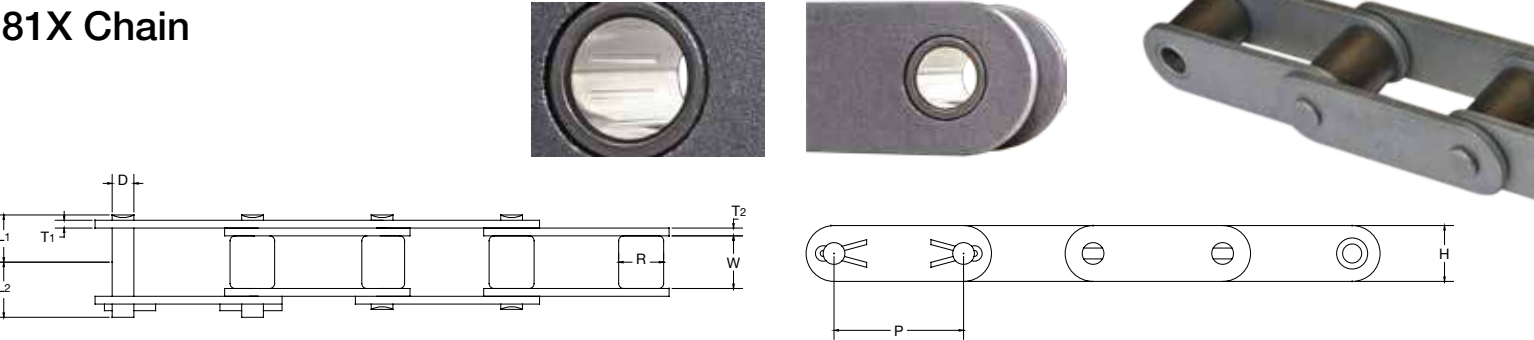
The Many Faces of 81X

Why choose one over the other? 81X is at the heart of every modern sawmill operation. This versatile chain is available in many grades of quality. At Tsubaki we are proud to offer three tiered levels of 81X quality:

Tier	Key Features	Key Applications
81X Econo	An economical version that meets the general need of non-timed sawmill applications.	Non-Timed Conveyors: • Transfers
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. • Improved material & heat treatment • Precision and consistency of fabrication & assembly	Multi-strand Timed Conveyors: • Scanner • Trimmer • Drop Sorter
81X Lambda ¹	Oil impregnated sintered metal bushing for lube-free operation. • 7-14 times longer life than unlubricated chain • Same precision of material, heat treatment, fabrication and assembly as 81X Premium.	Multi-strand Timed Conveyors: • Drop Sorter • Trimmer • Scanner • Any application where contamination of the product must be avoided

¹ Note that 81X Lambda chain has a slighter wider profile than Premium or Econo.

81X Chain

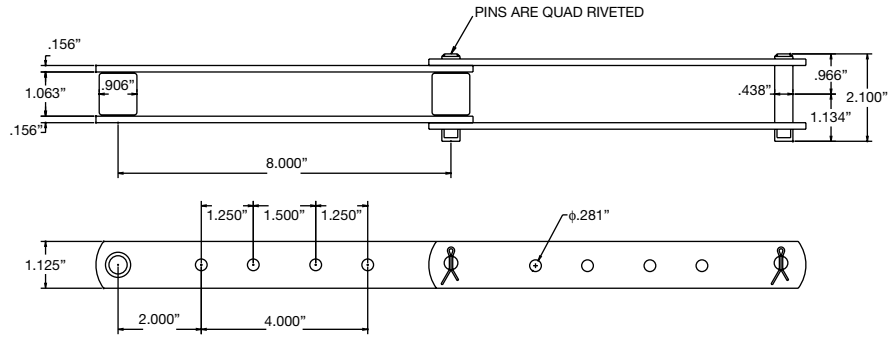
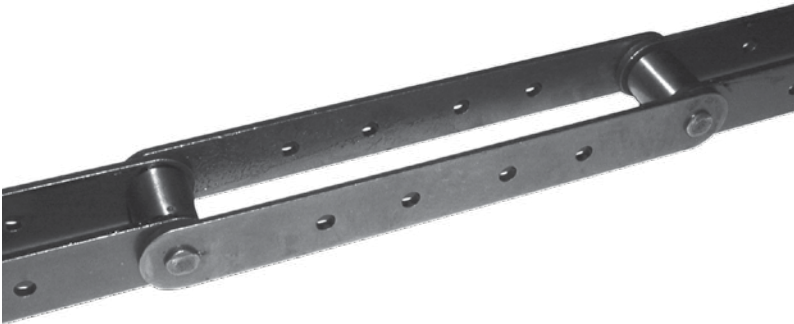


All dimensions in inches unless otherwise stated.

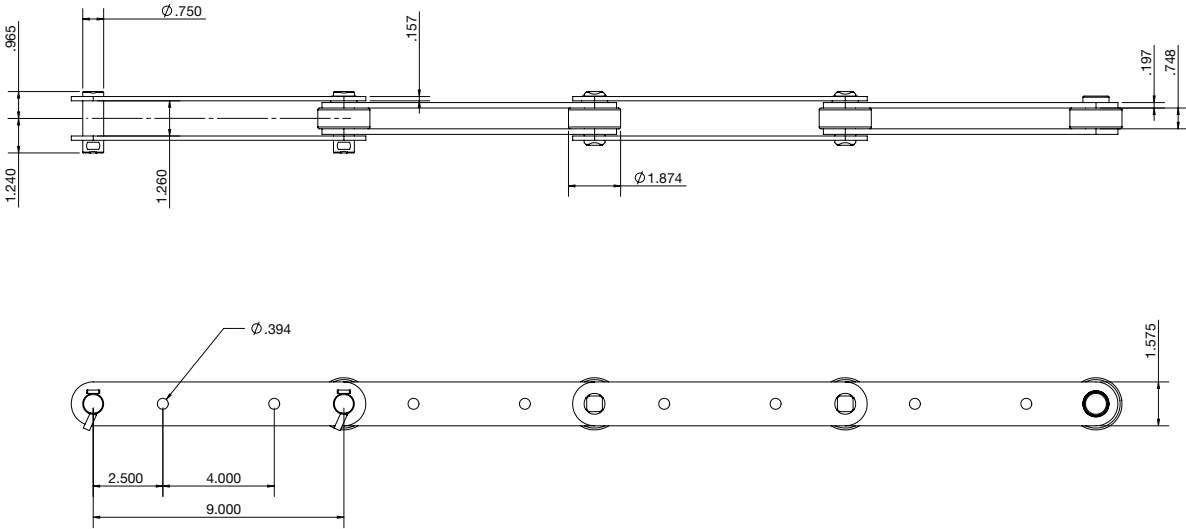
Chain Number	Pitch P	Roller Diameter R	Width Between Inner Link Plates W	Link Plate			Pin				Average Tensile Strength (lbs.)	Approx. Weight (lbs./ft.)
				Thickness T ₁	Thickness T ₂	Height H	Diameter D	Length L ₁ + L ₂	Length L ₁	Length L ₂		
81X Econo	2.609	0.906	1.060	0.157	0.157	1.125	0.437	2.063	0.951	1.112	24,000	2.42
81X Premium	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 Econo	2.609	0.906	1.060	0.220	0.315	1.260	0.437	2.536	1.181	1.355	42,000	4.12
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

3939-B4

3939-B4 chain is an 8" pitch version of 81X chain and is used for lumber conveying. It is typically used in drop sorter applications. Lumber is conveyed using J-bar attachments on the chain. Tsubaki can install the J-bars on the chain. Tsubaki can also supply sprockets to work with 3939-B4 chain. Please contact Tsubaki Technical Support for more information.



M900



INTRODUCTION TO MILL & DRAG CHAIN

One of the backbones of forestry operations, **Welded Steel Chain** operates in some of the most demanding applications. The inherent design provides high tensile and fatigue strength. This brute of a chain must withstand high shock loading, provide resistance to abrasive material and operate in extreme temperatures and climates. Building upon the basic design, **Tsubaki's Mill Chain Sidebars and Barrels** are shot peened for additional fatigue strength. Pins are precision fit for a superior press fit into the side bar.

*Mill chain only

Precision Press Fit Pins*

Increase wear resistance

Shot Peened Sidebars and Barrels*

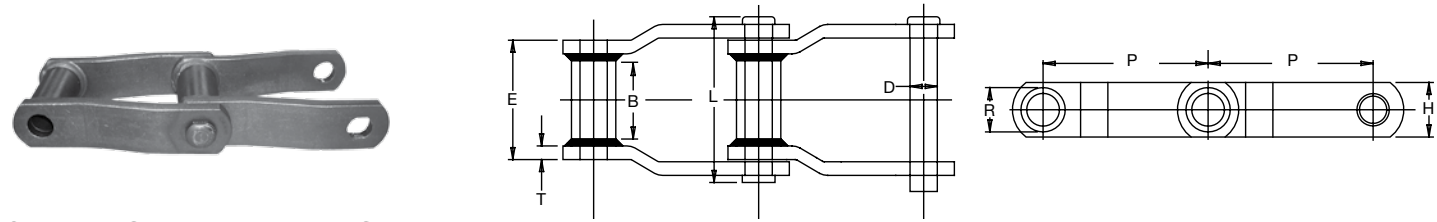
Provide additional fatigue strength

Application: Chip Truck Dumper
Savings: \$18,047.00
Tsubaki solution: After the first year of operation, only 1 link of Tsubaki was taken out vs. 4 links of the previous competitor install over that time period. Full life resulted in 27 months vs. 19 with less maintenance costs.

It really mattered to this Tsubaki customer

COST SAVINGS!

OFFSET SIDEBAR MILL CHAIN



Offset Sidebar Mill Chains

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					
WR78	2.609	0.250	1.25	0.50	3.00	2.00	1.00	0.84	30,000	4,500	4.2
WH78	2.609	0.250	1.25	0.50	3.00	2.00	1.00	0.84	33,000	5,500	4.2
WR78-4	4.000	0.250	1.25	0.50	3.00	2.00	1.00	0.84	30,000	4,500	3.5
WR82	3.075	0.250	1.25	0.56	3.24	2.25	1.13	1.00	30,000	5,000	5.0
WH82	3.075	0.250	1.25	0.56	3.24	2.25	1.13	1.00	36,000	6,000	5.0
*WR124IBR	4.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	50,400	8,200	8.0
WH124	4.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	57,000	9,500	8.0
WR111	4.760	0.375	1.75	0.75	4.80	3.36	2.25	1.25	50,400	9,500	9.2
WH111	4.760	0.375	1.75	0.75	4.80	3.36	2.25	1.25	60,200	12,000	9.2
WR106	6.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	50,400	8,200	6.6
WH106	6.000	0.375	1.50	0.75	4.25	2.75	1.50	1.25	60,250	12,000	6.6
WR110	6.000	0.375	1.50	0.75	4.81	3.00	1.88	1.25	46,000	6,800	6.6
WH110	6.000	0.375	1.50	0.75	4.81	3.00	1.88	1.25	60,000	12,000	6.6
WR132	6.050	0.500	2.00	1.00	6.14	4.41	2.75	1.75	85,500	14,100	14.2
WH132	6.050	0.500	2.00	1.00	6.14	4.41	2.75	1.75	122,000	20,300	14.2
WR150	6.050	0.500	2.50	1.00	6.50	4.41	3.00	1.75	100,000	19,000	17.1
WH150	6.050	0.500	2.50	1.00	6.50	4.41	3.00	1.75	122,000	20,300	17.1
WR155	6.050	0.625	2.50	1.13	6.41	4.63	2.75	1.75	148,000	22,000	19.8
WH155	6.050	0.625	2.50	1.13	6.41	4.63	2.75	1.75	185,000	29,000	19.8
WH157	6.050	0.623	2.50	1.13	6.625	4.63	2.75	1.75	175,350	29,225	20.0
WH157IBR	6.050	0.623	2.50	1.13	6.625	4.63	2.75	1.75	184,343	29,225	20.0

*WR124IBR is produced standard with extended wear life pin.

Extra Heavy Duty Offset Sidebar Mill Chains

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					
WR78XHD	2.636	0.38	1.25	0.56	3.37	2.00	1.00	1.00	40,000	5,000	6.2
WH78XHD	2.636	0.38	1.25	0.56	3.37	2.00	1.00	1.00	54,000	6,000	6.2
WR82XHD	3.075	0.38	1.50	0.75	3.75	2.38	1.13	1.25	32,500	8,400	8.5
WH82XHD	3.075	0.38	1.50	0.75	3.75	2.38	1.13	1.25	57,100	9,500	8.5
WR124XHD	4.063	0.50	2.00	1.00	4.87	3.00	1.50	1.75	85,500	14,200	14.8
WH124XHD	4.063	0.50	2.00	1.00	4.87	3.00	1.50	1.75	122,000	20,400	14.8
WR106XHD	6.050	0.50	2.00	1.00	4.87	3.00	1.50	1.75	85,000	14,200	12.2
WH106XHD	6.050	0.50	2.00	1.00	4.87	3.00	1.50	1.75	122,000	20,400	12.2
WR132XHD	6.050	0.63	2.00	1.00	6.75	4.67	2.75	1.75	120,000	20,000	16.5
WH132XHD	6.050	0.63	2.00	1.00	6.75	4.67	2.75	1.75	123,650	20,400	16.5

Notes:

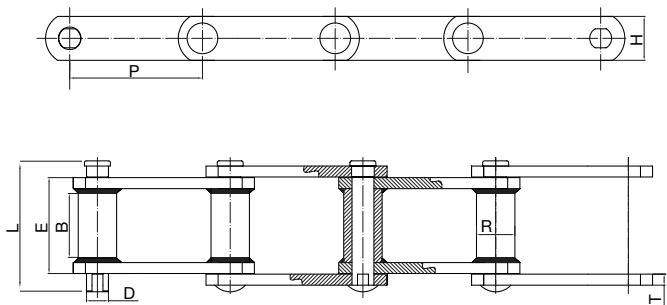
- WR: Offset sidebar style, with heat treated rivets.
- WH: Offset sidebar series, with all parts heat treated.
- WRXHD: Offset sidebar extra heavy duty series, with heat-treated rivets.

- WHXHD: Offset sidebar extra heavy duty series, with all parts heat treated.
- If extended wear life pin is required Tsubaki can supply IBR or IBRS as an option for all chain on this page.
- Riveted type connecting pins are supplied as standard cottered upon request.

STRAIGHT SIDE BAR MILL CHAIN

MILL CHAIN ATTACHMENTS

When consistency really matters



Straight Sidebar Mill Chains

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	Ultimate Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
		Thickness T	Height H		Overall L	Length of Bearing E					
WRC78	2.609	0.25	1.25	0.50	3.00	2.00	1.00	0.84	27,000	4,500	4.3
WRC131	3.075	0.38	1.50	0.75	3.56	2.24	1.13	1.25	50,400	8,400	8.4
WHC131	3.075	0.38	1.50	0.75	3.56	2.24	1.13	1.25	57,000	8,400	8.4
WRC124	4.000	0.38	1.50	0.75	4.25	2.75	1.50	1.25	50,400	8,400	7.8
WRC111	4.760	0.38	1.75	0.75	4.81	3.38	1.75	1.25	50,400	8,400	8.0
WRC110	6.000	0.38	1.50	0.75	4.25	2.75	1.50	1.25	50,400	8,400	7.2
WHC132IBR	6.050	0.50	2.00	1.00	6.50	4.41	2.75	1.75	121,800	14,100	14.1
WRC150	6.050	0.50	2.50	1.00	6.50	4.41	2.75	1.75	120,000	19,000	16.3

Extra Heavy Duty Straight Sidebar Mill Chains

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	Ultimate Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
		Thickness T	Height H		Overall L	Length of Bearing E					
WRC82XHD	3.075	0.38	1.50	0.75	3.75	2.40	1.13	1.25	50,400	8,400	8.5
WRC124XHD	4.063	0.50	2.00	1.00	4.88	3.00	1.50	1.75	85,000	14,200	14.6
WRC110XHD	6.050	0.50	2.00	1.00	4.88	3.00	1.50	1.63	85,000	14,200	11.8
WRC132XHD	6.050	0.63	2.00	1.00	6.75	4.66	3.13	1.63	120,000	20,000	15.3

- Notes:
1. WRC: Straight sidebar style, with heat treated rivets.
2. WHC: Straight sidebar series, with all parts heat treated.
3. WRCXHD: Straight sidebar extra heavy duty series, with heat treated rivets.
4. WHCXHD: Straight sidebar extra heavy duty series, with all parts heat treated.

All dimensions in inches unless otherwise stated.

K-1 ATTACHMENT							
Chain Number	C	J	N	O	S	T	X
WH78	2.00	1.25	1.25	0.38	0.88	0.25	0.50
WH78XHD	2.00	1.25	1.25	0.38	0.88	0.25	0.50
WH82	2.38	1.50	1.75	0.38	0.88	0.25	0.63
WH82XHD	2.38	1.50	1.75	0.38	1.13	0.38	0.63
WH124	2.63	2.00	1.75	0.38	1.13	0.38	0.63
WH124XHD	2.63	2.00	1.75	0.50	1.50	0.50	0.75
WH111	3.13	2.13	1.75	0.38	1.25	0.38	0.63
WH132	3.75	3.00	2.00	0.50	1.50	0.50	0.88
WH132XHD	3.75	3.00	2.00	0.50	1.50	0.50	0.88

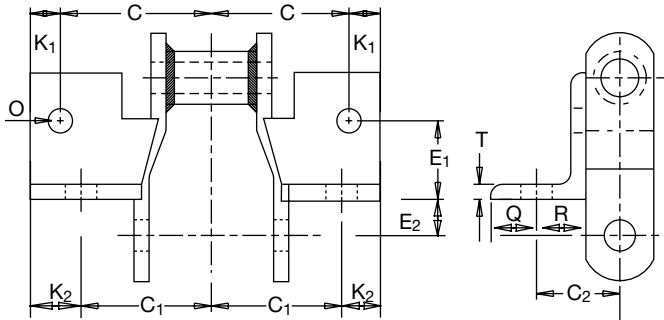
* Also available in WR

All dimensions in inches unless otherwise stated.

K-2 ATTACHMENT								
Chain Number	C	J ₂	N	K	O	S	T	X
WH78	2.00	0.81	2.13	1.13	0.38	0.88	0.25	0.50
WH78XHD	2.00	0.81	2.13	1.13	0.38	0.88	0.25	0.50
WH82	2.13	0.50	2.25	1.25	0.38	0.88	0.25	0.63
WH82XHD	2.38	0.50	2.25	1.25	0.38	1.13	0.38	0.63
WH124	2.63	0.88	3.00	1.94	0.38	1.13	0.38	0.63
WH124XHD	2.63	0.88	4.00	1.94	0.50	1.50	0.50	0.75
WH111	3.13	1.00	4.00	2.31	0.38	1.25	0.38	0.75
WH132	3.75	1.63	4.25	2.75	0.50	1.50	0.50	0.75
WH132XHD	3.75	1.63	4.25	2.75	0.50	1.50	0.50	0.88
WH150	3.75	1.63	4.25	2.75	0.50	1.75	0.50	0.88

* Also available in WR

F-4 Attachment



All dimensions in inches unless otherwise stated.

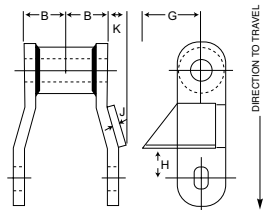
Chain Number	C ₂	E ₂	T	K ₁	K ₂	C	E ₁	Q	R	C ₁	O	Approx. Weight (lbs./ft.)
WH78	1.75	1.00	0.25	0.50	0.88	2.25	0.94	0.63	1.13	1.88	0.38	8.3
WH8XHD	1.75	1.00	0.25	0.50	0.88	2.25	0.94	0.63	1.13	1.88	0.38	9.9
WH82	1.81	1.25	0.25	0.44	0.88	2.50	1.13	0.81	1.19	2.06	0.38	8.9
WH82XHD	2.06	1.25	0.38	0.50	1.06	2.50	1.13	1.06	1.19	2.06	0.38	12.5
WH124	2.06	1.16	0.38	0.50	1.06	2.63	1.06	1.06	1.31	2.06	0.38	11.6

* Also available in WR

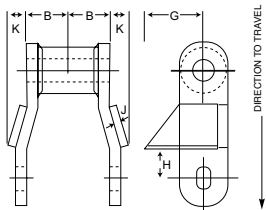
MILL CHAIN ATTACHMENTS

When option really matters

R2 Attachment
(WR78, WR78XHD & WR82 only)



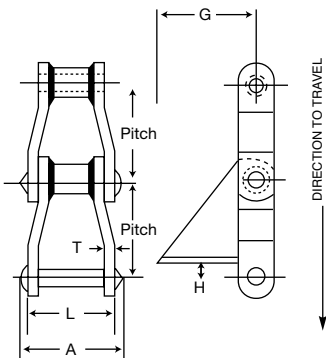
RR-2 Attachment



All dimensions in inches unless otherwise stated.

Chain Number						Approx. Wt. (lbs/ft)	
	B	G	H	J	K	R2	RR-2
WH78	1.00	1.56	1.00	0.25	0.50	4.4	4.8
WH78XHD	1.13	1.56	1.00	0.38	0.63	7.5	8.0
WH82	1.13	1.75	0.81	0.25	0.50	6.0	6.5
WH82XHD	1.19	2.06	0.81	0.38	0.75	-	8.5
WH124	1.38	1.88	1.50	0.38	0.75	-	9.3
WH132	2.20	2.50	1.50	0.50	0.88	-	16.0

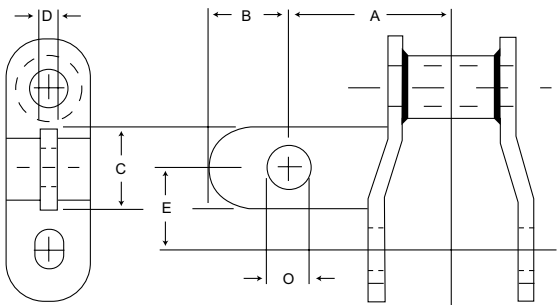
S1 Attachment



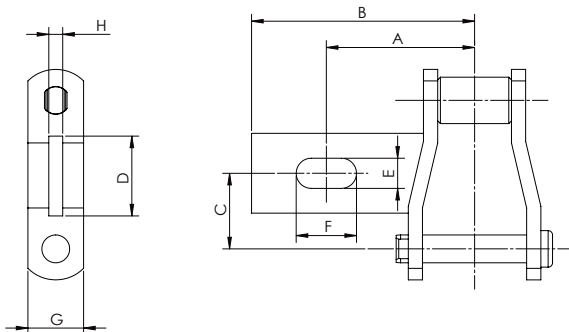
All dimensions in inches unless otherwise stated.

Chain Number	A	G	H	L	T	Approx. weight (lbs./ft.)
WH124	4.25	3.75	1.00	3.63	0.38	17.4
WH111	4.81	4.00	1.00	4.19	0.38	18.3
WH106	4.25	3.75	1.00	3.63	0.38	16.1
WH124XHD	4.88	3.75	1.28	4.13	0.50	26.0
WH132	6.25	5.00	1.28	5.28	0.50	18.0
WH150	6.25	5.50	1.28	5.28	0.50	20.0

A22 Attachment



A22 Slotted Attachment

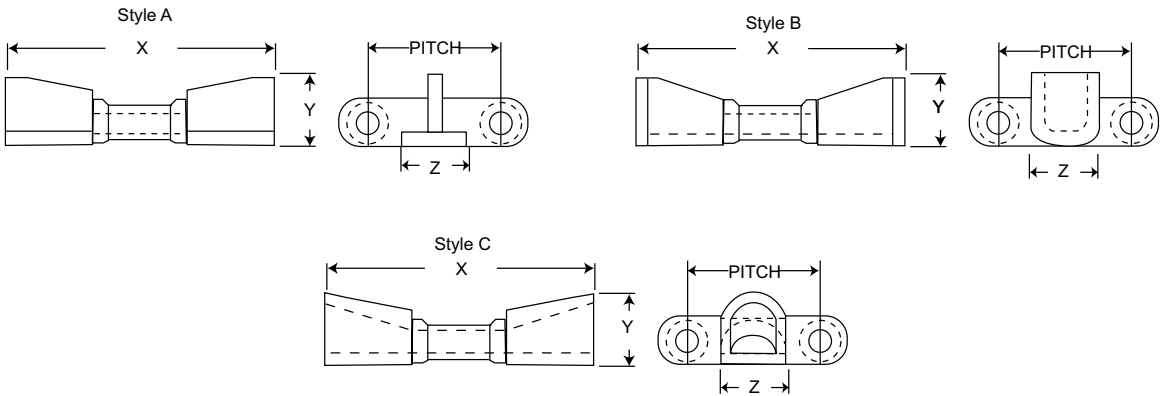


All dimensions in inches unless otherwise stated.

A22 Attachment							A22 Slotted Attachment								
Chain Number	A	B	C	D	E	O	Chain Number	A	B	C	D	E	F	G	H
WH78	2.000	0.63	1.25	0.25	1.25	0.44	WH124	4	5 15/16	1 3/4	2	13/16	1 1/2	1 1/2	1/2
WH78XHD	2.125	0.75	1.25	0.38	1.25	0.44	WH124XHD	4 1/8	6 1/16	1 3/4	2	13/16	1 1/2	2	1/2
WH124	3.000	0.88	1.75	0.38	2.00	0.56	WH132	4 1/2	6 1/4	3	2	13/16	1 1/2	2	1/2
WH124XHD	3.125	1.00	1.75	0.50	2.00	0.56	WH132XHD	4 5/8	6 3/8	3	2 1/2	13/16	1 1/4	2	1/2
WH132	4.250	1.00	1.75	0.50	3.00	0.81	All items are also available in "H" Series, fully heat treated, and/or plus "IBR"/"IBRS" induction hardened options.								
WH132XHD	4.250	1.00	2.00	0.63	3.00	0.81									

Tabular dimensions and weights are approximate and non-binding. Design improvements may result in variations to published figures. Verification is recommended.

Log Cradle Attachments



All dimensions in inches unless otherwise stated.

Chain Number	Pitch	Style A			Style B			Style C			Special Style C		
		X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
WH124	4.00	8.00	2.50	2.50	8.00	2.50	2.25	8.00	2.25	3.50	11.00	2.94	3.00
WH111	4.76	8.50	2.25	1.75	8.50	3.00	2.25	8.50	2.25	3.50	11.00	2.94	3.00
WH124XHD	4.063	8.50	3.00	2.50	8.50	3.00	2.50	8.50	3.00	3.00	11.00	3.75	3.00
WH106	6.00	8.00	2.25	3.00	8.00	2.25	2.25	8.00	2.25	3.50	11.63	2.94	3.50
WH132	6.05	11.00	3.00	3.00	11.00	3.00	3.25	11.00	3.00	3.50	13.00	3.50	3.50
WH132XHD	6.05	11.25	3.00	3.00	11.25	3.00	3.00	11.63	3.00	3.50	13.63	3.25	3.50

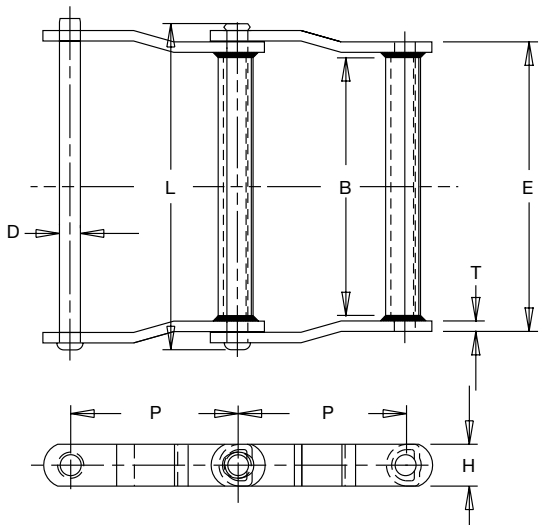
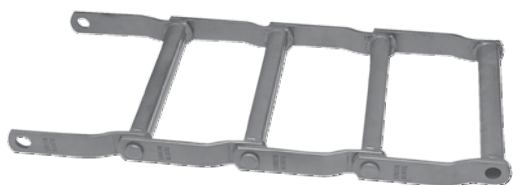
DRAG CHAIN

DRAG CHAIN
ATTACHMENTS

When versatility really matters

Drag Chains move very heavy loads.

They provide efficient and economical service when used in drag conveyor applications such as those involving chips and sawdust. Like Mill Chains, Drag Chains combine strength, precision, impact resistance and wear resistance. This versatile and economical chain is built to withstand punishing shock loads and abrasive conditions to provide longer wear life in your operation.



All dimensions in inches unless otherwise stated.

Drag Chain

Chain Number	Pitch P	Sidebars		Pin Dia. D	Chain Width		Effective Distance Between Welds B	Ultimate Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
		Thickness T	Height H		Overall L	Length of Bearing E				
WD102	5.000	0.38	1.50	0.75	9.25	7.75	6.38	51,000	10,200	12.1
WDH104	6.000	0.38	1.50	0.75	6.75	5.34	4.13	51,000	10,200	10.1
WD110	6.000	0.38	1.50	0.75	11.75	10.22	9.00	51,000	10,200	12.7
WDH110	6.000	0.38	1.50	0.75	11.75	10.22	9.00	56,000	11,385	12.7
WDH112	8.000	0.38	1.50	0.75	11.75	10.22	9.00	56,000	10,200	10.4
WD116	8.000	0.38	1.75	0.75	15.50	14.13	13.00	51,000	10,200	14.8
WD118	8.000	0.50	2.00	* 0.88	16.63	14.88	13.25	70,000	14,000	18.7
WD120	6.000	0.50	2.00	* 0.88	12.00	10.25	8.75	85,000	14,000	18.4
WD122	8.000	0.50	2.00	* 0.88	12.00	10.25	8.75	70,000	14,000	15.3
WD480	8.000	0.50	2.00	* 0.88	14.50	12.75	11.00	70,000	14,000	20.0
WDH480	8.000	0.50	2.00	* 0.88	14.50	12.75	11.00	85,000	17,286	20.0
† WDRS480LB	8.000	0.50	2.00	1.00	14.50	12.75	11.00	85,000	17,100	21.1
WD580	8.000	0.50	2.00	1.00	14.50	12.75	11.00	70,000	10,000	21.1

*Also available in 1" pin diameter.

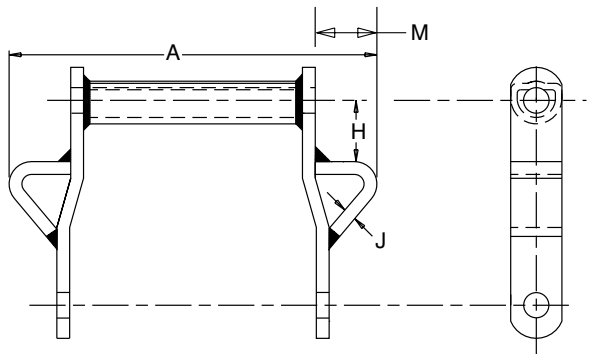
Heavy Duty and “Large Barrel” Style Drag Chain

All dimensions in inches unless otherwise stated.

Chain Number	Pitch P	Sidebars		Pin Dia. D	Chain Width		Effective Distance Between Welds B	Ultimate Strength (lbs.)	Maximum Allowable Load (lbs.)	Approx. Weight (lbs./ft.)
		Thickness T	Height H		Overall L	Length of Bearing E				
WD120XHD	6.000	0.63	2.00	1.00	12.75	10.50	8.75	122,000	24,000	22.5
WD118XHD	8.000	0.63	2.00	1.00	17.38	15.13	11.00	122,000	24,000	22.5
WD122XHD	8.000	0.63	2.00	1.00	12.75	10.50	8.75	122,000	24,000	19.5
WD480XHD	8.000	0.63	2.00	1.00	15.25	13.00	11.00	122,000	24,000	23.3
† WDRS480XHDLB	8.000	0.63	2.00	1.00	15.25	13.00	11.00	122,000	24,000	23.3

†-“Large Barrel” style

Folded Wing Attachment



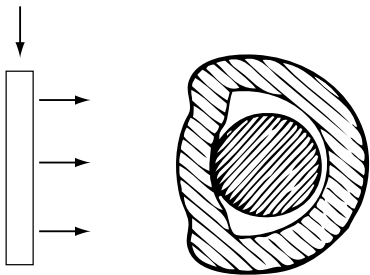
All dimensions in inches unless otherwise stated.

Chain Number	A *	H	J	M
WD102	14.50	1.50	0.38	3.25
WD104	12.00	2.25	0.38	3.38
WD110	17.00	2.25	0.38	3.38
WD112	17.00	2.25	0.38	3.38
WD113	17.00	2.25	0.38	3.38
WD116	22.00	2.50	0.38	3.94
WD118	22.00	2.50	0.50	3.56
WD120	17.00	2.50	0.50	3.38
WD122	17.00	2.50	0.50	3.38
WD480	22.00	2.50	0.50	4.63
WD120XHD	17.25	2.50	0.50	3.25
WD118XHD	22.25	2.50	0.50	3.44
WD480XHD	22.25	2.50	0.50	4.50

*The nominal dimension is shown in the chart.
Please specify exact width required when order is placed.

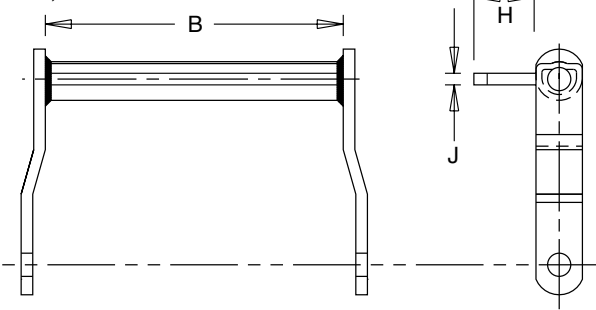
C1/2, C1, C-3 and C-4 Attachments

C-1/2 Attachments



End view of drag chain barrel
C-1/2 is welded to barrel face.

C-1, C-3 and C-4 Attachments



All dimensions in inches unless otherwise stated.

Chain Number	C-1/2*			C-1			C-3			C-4		
	B	J	H	B	J	H	B	J	H	B	J	H
WD102	6.75	0.38	1.50	6.75	0.38	1.50	6.75	0.38	1.75	6.75	0.38	3.00
WD104	4.50	0.38	1.50	4.50	0.38	1.50	4.50	0.38	1.75	4.50	0.38	3.00
WD110	9.25	0.38	1.50	9.25	0.38	1.50	9.25	0.38	1.75	9.25	0.38	3.00
WD112	9.25	0.38	1.50	9.25	0.38	1.50	9.25	0.38	1.75	9.25	0.38	3.00
WD113	9.00	0.50	1.50	9.00	0.50	1.75	9.00	0.50	1.75	9.00	0.50	4.00
WD116	13.00	0.38	1.75	13.00	0.38	1.75	13.00	0.38	1.75	13.00	0.38	4.00
WD118	13.50	0.50	2.00	13.50	0.50	1.75	13.50	0.50	2.00	13.50	0.50	4.00
WD120	9.00	0.50	2.00	9.00	0.50	1.75	9.00	0.50	2.00	9.00	0.50	4.00
WD122	9.00	0.50	2.00	9.00	0.50	1.75	9.00	0.50	2.00	9.00	0.50	4.00
WD480	11.50	0.50	2.00	11.50	0.50	1.75	11.50	0.50	2.00	11.50	0.50	4.00

*Note: C-1/2 attachments are welded on front barrel. C-1, C-3, C-4 attachments are welded on top of barrel. C-1/2 attachments do not extend above sidebar height.

WELDED STEEL CHAIN TECHNICAL DISCUSSION

Application: Outdoor Chip Conveyor
Savings: \$16,300.00
Tsubaki solution: Downtime savings were realized on this outdoor conveyor with Tsubaki life resulting in 14 months compared to previous brand at 6 months.

It really mattered to this Tsubaki customer

COST SAVINGS!

STRENGTH

Why/when do you use 1" pin for drag chain vs standard (.88)?

A larger diameter pin will decrease the bearing pressure of the same chain as the forces are spread over a larger surface. This allows the chain to withstand larger loads over the same chain footprint. Basically, a larger pin will allow larger tensions and loads to be transmitted by the same chain over a smaller pin diameter.

Why go with Large Barrel?

Large Barrel has the same strength as the WDH480 base chain except that it comes complete with a thicker barrel. This added thickness provides extra strength, resistance to crushing forces and additional life as the barrel will have more material to wear through.

CORROSION

What options are available to eliminate corrosion?

Welded steel chains are generally used in very demanding applications. These applications are often outdoors, creating an environment conducive to corrosion. In order to eliminate corrosion, a plating or coating can be used to prevent and/or reduce the rate of corrosion. Tsubaki's ACC (Anti-Corrosion Coating) can be applied to assembled chain to maximize the life of your chains.

WEAR

Why/when use IBR, IBRS?

IBR/IBRS (Induction Hardened Barrels & Rivets, Sideplates) is a heat treatment that will give a chain increased wear properties. The parts are initially through hardened and then induction hardened to a higher hardness, which will allow the parts to wear longer in abrasive conditions.

What is considered the proper direction of travel open end or closed end and why?

There is no rule for the proper direction of chain travel. For interference concerns, the barrel end should be run first so that if the chain contacts something, it will be pushed out of the way rather than pulled in and potentially jam the chain or damage the chain and/or other parts. For wear concerns, it is recommended that the open end be run first. This causes a reduction in sprocket wear as the motion between the chain and sprocket tooth is reduced. The wear is reduced by restricting the joint articulation to the pin-barrel, which is best able to withstand this type of wear.

Should conveyor troughs be flared and what are the benefits?

Conveyor troughs should be flared so that the chain will enter and exit the conveyor smoothly. This will avoid the chain wearing unevenly and/or getting jammed on any part of the entry or exit of the conveyor.

What are the advantages of full face sprockets vs. A plates?

Advantage of full face sprockets over "A" style is that they support the chain and its attachments over a greater surface area of the barrel. This ensures that the stress of the load is not concentrated in a smaller area of the chain and can help reduce fatigue-type failures on the barrels.

What is the recommended clearance between trough and wing attachments?

It is best to have no more than a 1/2" clearance between the inside trough edge and the outer edge of a chain. This includes any attachment that has been welded to the chain. Ensure that the chain and trough are aligned and that the chain does not move from side to side under normal operating conditions.

INSTALLATION

Can Tsubaki chain be joined with another manufacturer's chain?

Tsubaki WSC chain is interchangeable with other manufacturers of WSC. It is best to use the same manufacturer's rivet and corresponding sidebars for assurance of a premium fit.

How can I speed up and facilitate chain assembly and disassembly?

Tsubaki of Canada manufactures a specifically designed tool, the ECCT, for easy assembly and disassembly while in the field. See page 47 for details.

When my chain starts stretching and needs changing, what else should I check?

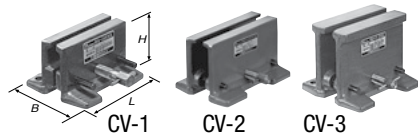
Upon changing the chain it is best to change the sprocket at the same time to ensure that all components wear evenly. Putting a new chain on used sprockets, even if they look to be in fair condition, can have adverse effects on the new chain's lifespan. While the chain is off of the conveyor, it is recommended to check all points of the infrastructure, troughs, beds, sprocket teeth/alignment and take-up systems to ensure all parts are in good working order.

What is the maximum recommended elongation for mill/drag chains?

2% - 3% elongation is where the chain should be replaced. Of course, elaborate take-up systems can be adjusted to ensure a chain can be run even longer but wear of individual components such as the pin and barrel will surpass an acceptable wear limit and the chain's load ratings will be compromised. In addition, if the chain is sliding in a trough and the sidebar height is reduced by 5% or more, the chain should be replaced.



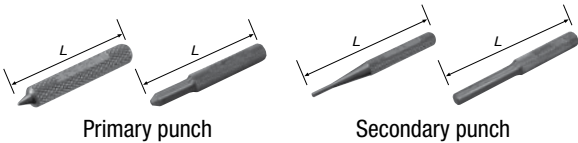
Chain Vice



All dimensions in inches unless otherwise stated.

Type	Suitable Chain			Dimensions (B)		
	Single Strand	Double Strand	Triple Strand	L	H	B
CV-1	40 - 80	40	-	4.0	2.6	3.7 - 4.5
CV-2	40 - 160	40 - 100	40 - 100	7.1	4.3	4.7 - 5.9
CV-3	80 - 240	80 - 160	80 - 100	7.9	6.7	7.1 - 8.7

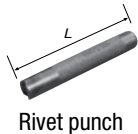
Punch



All dimensions in inches unless otherwise stated.

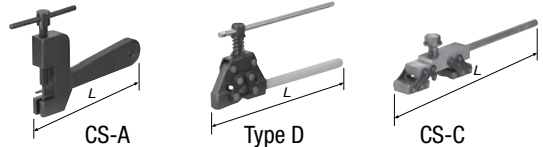
Type				Suitable Chain
Primary Punch	L (in)	Secondary Punch	L (in)	
S-1	2.4	D-1	3.2	40 - 60
S-2	2.8	D-2	3.5	80 - 120
S-3	3.2	D-3	4.7	140 - 240

Type		Suitable Chain
Riveting Punch	L (in)	
40 Punch	3.9	40
50 Punch	3.9	50
60 Punch	3.9	60
80 Punch	3.9	80



Rivet punch

Chain Breakers



All dimensions in inches unless otherwise stated.

Type	L (in)	Suitable Chain (Single Strand)	Type	L (in)	Suitable Chain (Sgl. & Dbl. Strand)
CS-A1	4.6	25	D-35	7.3	25 - 60
CS-A2	4.6	35	D-60	8.7	60 - 100
CS-A3	4.6	41	D-120	11.4	120 - 160
CS-A4	4.6	06B	CS-C3	27.9	160 - 240

Note: In addition to RS Roller Chains, Chain Breakers can be used with BS Roller Chains and Marine Chains. However, Chain Breakers for Marine Chains are made-to-order.

Lambda Chain Cutting Tools

A special vice and a primary and secondary punch are required to disassemble Lambda Chains.



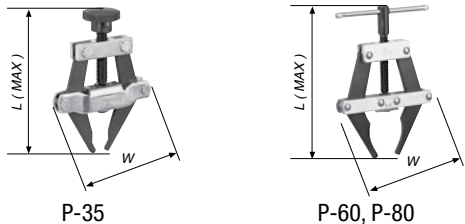
All dimensions in inches unless otherwise stated.

Model Number	L	H	B	Application Chain
RS-LMD01-AST	2.6	1.3	1.3	RS40-LMD-1
RS-LMD02-AST	3.1	1.6	1.6	RS50-LMD-1
RS-LMD03-AST	3.7	1.9	1.9	RS60-LMD-1
RS-LMD04-AST	5.1	2.4	2.4	RS80-LMD-1
RS-LMD05-AST	6.3	2.9	2.9	RS100-LMD-1
RS-LMD06-AST	6.3	3.5	3.5	RS120-LMD-1
RS-LMD07-AST	7.1	3.9	3.9	RS140-LMD-1

Note: 1. The special punch and vice are included as a set. Punch dimensions are the same as for the punch in section 2.

Chain Connecting Tool
Chain Puller

This tool pulls the two ends of the chain together when installing the chain on a machine.

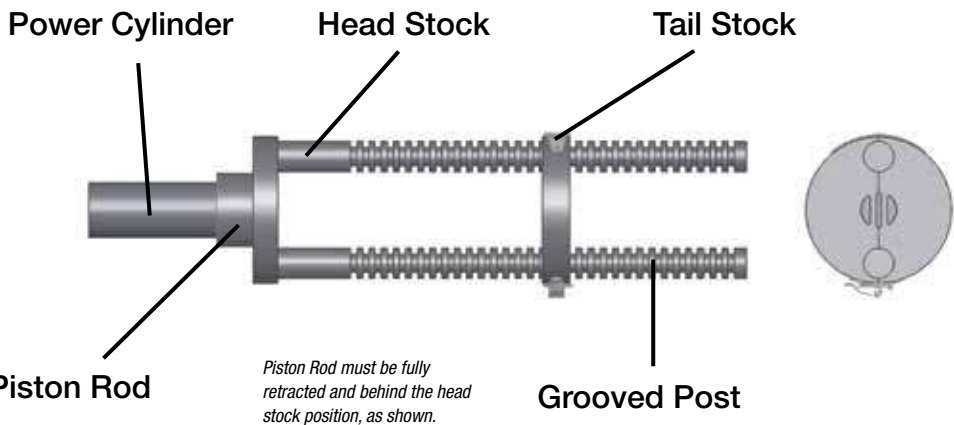


All dimensions in inches unless otherwise stated.

Model Number	L	W	Application Chain (Single-strand)
P-35	4.6	2.8	35-60
P-60	7.3	4.3	60-100
P-80	9.8	5.7	80-240

No Impact.
Just 5 easy
steps with ECCT.

Your purchased chain is e (3048 mm) or a reel. The 1 available for cutting the cl See "Roller Chain and Spr



Sample of chain sizes that are suitable are as follows:

Mill Chain: 82, 124, 111, 106, 110, 132

Drag Chain: 102, 104, 110, 112, 116, 480

Standard: CC5

1 Start with the ECCT Tool aligned so that the posts are in the vertical position with one post directly over top of the other post.

2 Disassembly/Assembly

- a) To disassemble, grind off peened end of the chain pin. Open the tail end stock and adjust along the posts as needed to the appropriate position for the chain that you wish to disassemble. It is not critical that the chain be tight to the head and tail stocks as the piston rod will move out to meet the chain. 1/2"-1" space is recommended. To continue disassembly, go to Step 3.



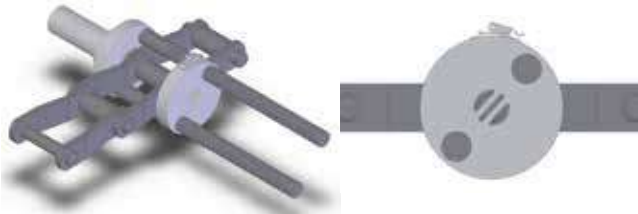
Open tail stock and adjust to the chain width

- b) To assemble, loosely install the pin into the chain, open the tail stock and adjust along the posts to the appropriate position for the chain that you wish to assemble. It is not critical that the chain be tight to the head and tail stocks as the piston rod will move out to meet the pin. To continue assembly go to Step 3.



Ensure that there is enough room to adjust the chain pin position as needed

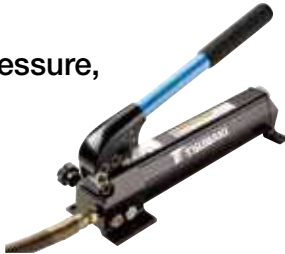
3 Rotate the entire ECCT tool until the top and bottom posts contact the chain at the top and bottom as shown below.



4 Disassembly/Assembly

- a) To disassemble, continue applying pressure until the pin breaks the press fit on the chain. You will hear "pop or breaking" sounds when this happens. Ensure that the pin has broken the press fit completely. To continue disassembling chain, go to step 5.
- b) To assemble, continue to apply pressure until pin seats completely into the chain. There should be no gap between pin head and link plate. To continue assembling go to Step 5.

5 Release the hydraulic pressure, returning the piston rod to the relaxed position. Open the tail stock and remove the chain.



SPROCKETS

When quality really matters

Tsubaki Precision Manufacturing

Seamless excellence from concept to market.
Largest sprocket manufacturing facility in Canada.

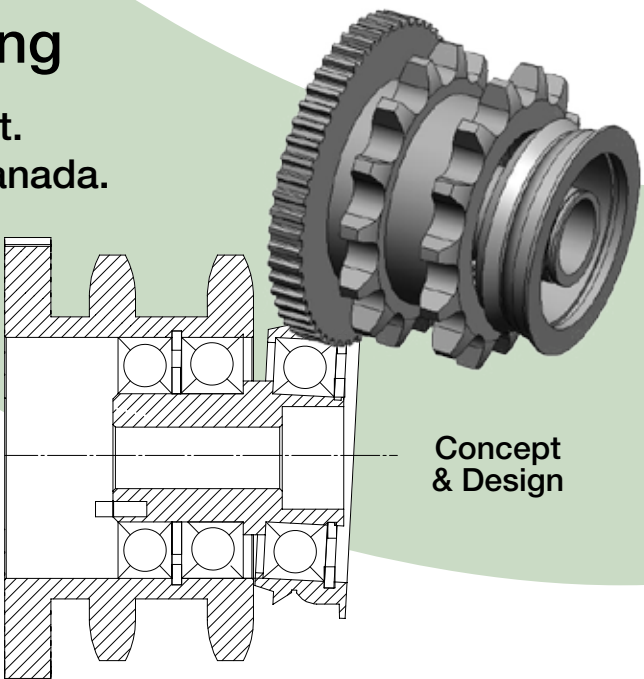
These are the concepts we live:

Dantotsu, a better than best mentality to produce the utmost in quality.

Kaizen, a total company involvement focusing on continuous workplace improvement.

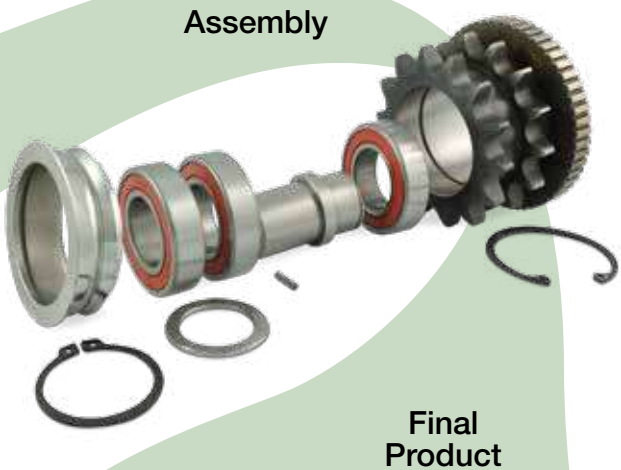
5S, workplace management to improve safety, increase worker efficiency, and to achieve a sense of pride and ownership.

ISO, 9001-2008 registered.



In Process
Precision & Accuracy

Final Component
Quality & Reliability



Final Product



Sprocket Options

- 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.
- Material – Carbon, Stainless, Alloy, Quench & Tempered (QT), Plastic.
- Styles – Roller Chain & Engineered Class.
- Value Added Options – Mud Relief, Wear Indicator, Adjustable, Encoder mounting holes, encoder flags, Integrate separate components (sprocket-clutch), lubrication holes and grooves.
- Construction Options – Split Segmental Rim

Wear Indicators

Sprocket wear is one of the leading causes of premature chain failure. When you can't waste valuable machine time inspecting sprockets, trust Tsubaki wear indicators to remove the guesswork.

Patent information: Canada 2429302, USA 7018313

Timing Pulley Options

- Aluminum, Steel, Stainless
- Poly-Chain GT2™, HTD, Trapezoid
- Zinc Plating, Brass Pulley

*Poly-Chain GT2™ is a trademark of the Gates Corporation.



Capacities & Machining Centres

- Local manufacturing means rapid turnaround of your unique products and requirements.
- Raw material sourcing
 - Local daily delivery of plate and bar
 - Forged ring
- Turning
- Milling
- Cutting
 - Machining
- Hobber
- Gasher
 - Flame Cut
- Slotting & Broaching
 - Spline
 - Keyway
- Heat Treat
 - Induction
 - Flame
 - Tempering & Quenching
- Finishing
 - Paint/Powder Coat/Oxide/Plate/Vibra-Finish



Design

- Design from sample
- Design Studies – Mechanical property testing
- Prototype development
- Understands your need for unique and custom design
- 3D Modeling (SolidWorks) software. Can be integrated into your assembly drawing.

Reliability

- The assurance that your unique designs will be manufactured to order.

Engineering Support

- Improvement to current design
 - Optimization of material selection
 - Value added additions
 - Review of geometry and profile to suit application requirement
- Engineering report using 3rd party analysis
- Reverse Engineering

Inventory Support

- Tsubaki will stock to suit your blanket order requirements.
 - Draw inventory as your product requires
 - Peace of mind security: assurance that your inventory will be available when you need it
- Tap into Tsubaki's global supply chain network and resources.

NO. 80 FINISHED BORE 1" PITCH

NO. 80 MULTIPLE STRAND 1" PITCH

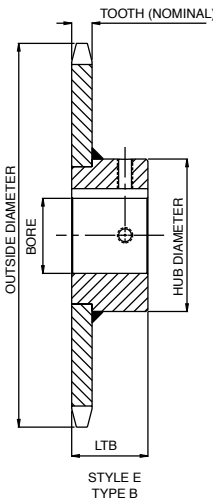
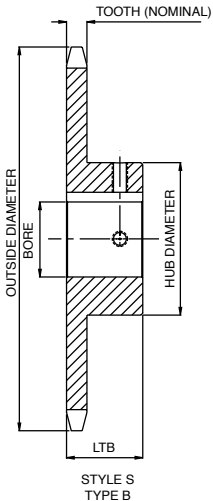
When experience really matters

All dimensions in inches unless otherwise stated.

No. Teeth	Catalogue Number	Style	Sprocket Diameters 1" Pitch			Stock finished bores (including keyway and 2 set screws)									
			Outside Dia.	Pitch Dia.	Caliper Dia.										
9	80B9F	S	3.348	2.924	2.254	1 1/8	1 1/16	1 1/4							
10	80B10F	S	3.678	3.236	2.611	1 1/8	1 1/16	1 1/4							
11	80B11F	S	4.006	3.550	2.888	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	*		
12	80B12F	S	4.332	3.864	3.239	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4		
13	80B13F	S	4.657	4.179	3.523	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	*
14	80B14F	S	4.981	4.494	3.869	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	*
15	80B15F	S	5.304	4.810	4.158	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	
16	80B16F	E	5.627	5.126	4.501	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16
17	80B17F	E	5.949	5.442	4.794	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16
18	80B18F	E	6.271	5.759	5.134	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16
19	80B19F	E	6.593	6.076	5.430	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16
20	80B20F	E	6.914	6.392	5.767	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
21	80B21F	E	7.235	6.710	6.066	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
22	80B22F	E	7.555	7.027	6.402	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
23	80B23F	E	7.876	7.344	6.702	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
24	80B24F	E	8.196	7.661	7.036	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
25	80B25F	E	8.526	7.979	7.338	1 1/8	1 1/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
26	80B26F	E	8.836	8.296	7.671		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
27	80B27F	E	9.156	8.614	7.974		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
28	80B28F	E	9.475	8.931	8.306		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
29	80B29F	E	9.795	9.249	8.611		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
30	80B30F	E	10.114	9.567	8.942		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
31	80B31F	E	10.434	9.884	9.247		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
32	80B32F	E	10.753	10.202	9.577		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
33	80B33F	E	11.073	10.520	9.883		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
34	80B34F	E	11.392	10.838	10.213		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
35	80B35F	E	11.711	11.156	10.520		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
36	80B36F	E	12.030	11.474	10.849		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
37	80B37F	E	12.349	11.792	11.156		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
38	80B38F	E	12.668	12.110	11.485		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
39	80B39F	E	12.987	12.428	11.792		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
40	80B40F	E	13.306	12.746	12.121		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
41	80B41F	E	13.625	13.064	12.429		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
42	80B42F	E	13.944	13.382	12.757		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
43	80B43F	E	14.263	13.700	13.065		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
44	80B44F	E	14.582	14.018	13.393		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
45	80B45F	E	14.901	14.336	13.702		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
46	80B46F	E	15.219	14.654	14.029		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
47	80B47F	E	15.538	14.972	14.338		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
48	80B48F	E	15.857	15.290	14.665		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
49	80B49F	E	16.176	15.608	14.975		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
50	80B50F	E	16.495	15.926	15.301		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
51	80B51F	E	16.813	16.244	15.611		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
52	80B52F	E	17.132	16.562	15.937		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
53	80B53F	E	17.451	16.880	16.248		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
54	80B54F	E	17.769	17.198	16.573		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
55	80B55F	E	18.088	17.516	16.884		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
56	80B56F	E	18.407	17.835	17.210		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
57	80B57F	E	18.725	18.153	17.521		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
58	80B58F	E	19.044	18.471	17.846		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
59	80B59F	E	19.363	18.789	18.157		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16
60	80B60F	E	19.681	19.107	18.482		1 3/16	1 1/4	1 3/8	1 7/16	1 1/2	1 5/8	1 3/4	1 15/16	2 23/16 27/16 215/16

Hub diameters may vary to suit bore sizes. All finished bore sprockets are manufactured with keyway centerline of tooth.

* Indicates set screw at 90° and 180° from keyway.



Dimensional Data	
Single Strand Chain	80
Size	80
Pitch	1.000"
Chain Inside Width	0.625"
Roller Diameter	0.625"
Nominal Tooth Width	0.575"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).

All dimensions in inches unless otherwise stated.

Sprocket Diameters 1" Pitch					80-2 Double Strand (Type B and C)							80-3 Triple Strand (Type B and C)						
No. Teeth	Outside Dia.	Pitch Dia.	Caliper Dia.	Stock Bore	Catalogue Number	Type	Style	†Max Bore	*Hub Diameter	LTB	Weight (lbs.)	Catalogue Number	Type	Style	†Max Bore	*Hub Diameter	LTB	Weight (lbs.)
10	3.678	3.236	2.611	1	D80B10	B	S	1⅜	2⅞ C	2¾	3.50							
11	4.006	3.550	2.888	1	D80B11	B	S	1⅞	2⅝	2½	3.90	T80B11	B	S	1⅞	2⅝	3⅝	5.7
12	4.332	3.864	3.239	1	D80B12	B	S	1⅞	2⅞	2½	4.90	T80B12	B	S	1⅞	2⅞	3⅝	7.2
13	4.657	4.179	3.523	1	D80B13	B	S	2	3⅞	2½	6.10	T80B13	B	S	2	3⅞	3⅝	8.9
14	4.981	4.494	3.869	1	D80B14	B	S	2¼	3⅞	2½	7.30	T80B14	B	S	2¼	3⅞	3⅝	10.7
15	5.304	4.810	4.158	1	D80B15	B	S	2½	3⅝	2½	8.70	T80B15	B	S	2½	3⅝	3⅝	12.7
16	5.627	5.126	4.501	1	D80B16	B	S	2¾	4	2¾	11.10	T80B16	B	S	2¾	4	3⅝	15.8
17	5.949	5.442	4.794	1	D80B17	B	S	2⅞	4⅞	2¾	12.80	T80B17	B	S	2⅞	4⅞	3⅝	18.3
18	6.271	5.759	5.134	1	D80B18	B	S	3⅞	4⅞	2¾	14.60	T80B18	B	S	3⅞	4⅞	3⅝	20.9
19	6.593	6.076	5.430	1	D80B19	B	S	3⅞	4⅞	2¾	16.60	T80B19	B	S	3⅞	4⅞	3⅝	23.8
20	6.914	6.392	5.767	1	D80B20	B	S	3⅞	5	2¾	18.20	T80B20	B	S	3⅞	5	3⅝	26.2
21	7.235	6.710	6.066	1	D80B21	B	S	3⅞	5	2¾	19.60	T80B21	B	S	3⅞	5	3⅝	28.6
22	7.560	7.027	6.402	1	D80B22	B	S	3⅞	5	2¾	21.00	T80B22	B	S	3⅞	5	3⅝	31.0
23	7.880	7.344	6.702	1	D80B23	B	S	3⅞	5	2¾	22.80	T80B23	B	S	3⅞	5	3⅝	34.0
24	8.196	7.661	7.036	1⅞	D80B24	B	S	3⅞	5	2¾	24.70	T80B24	B	S	3⅞	5	3⅝	34.6
25	8.520	7.979	7.338	1⅞	D80B25	B	S	3⅞	5	2¾	28.30	T80B25	B	S	3¾	5½	4¼	41.0
30	10.114	9.567	8.942	1⅞	D80B30	B	S	3¾	5½	3	39.50	T80B30	B	S	3¾	5½	4¼	52.2
36	12.030	11.471	10.849	1⅞	D80B36	B	D	3¾	5½	3⅞	55.10	T80B36	B	D	3¾	5½	4¼	75.1
45	14.901	14.366	13.702	1⅞	D80B45	B	D	3¾	5½	3⅞	85.80	T80C45	C	W	4	6	4½	90.2
48	15.857	15.290	14.665	1⅞	D80C48	C	W	3¾	5½	3¾	68.30	T80C48	C	W	4	6	4½	99.6
60	19.681	19.107	18.482	1⅞	D80C60	C	W	3¾	5½	3¾	91.20	T80C60	C	W	4	6	4½	131.1
80	26.052	25.471	24.846	1⅞	D80C80	C	W	4	6	4	142.80	T80C80	C	W	4	6	4½	192.1

NO. 80 “QD” STYLE 1" PITCH

NO. 80 SINGLE SPLIT TAPER 1" PITCH

When experience really matters

All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B												
1" Pitch																
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Type	Style	Bushing	Max. Bore	Hub Diameter	LTB	X	Y	L	F	Weight (lbs.)	
11	4.006	3.550	2.888	80SH11	B	S	SH	1 5/16	2 1/16	1 3/16	1 3/8	1 3/8	1 9/32	2 11/16	1.1	
12	4.332	3.864	3.239	80SH12	B	S	SH	1 5/16	2 3/4	1 3/16	1 3/8	1 3/8	1 9/32	2 11/16	1.3	
13	4.657	4.179	3.523	80SDS13	B	S	SDS	2	3 3/16	3/4	1 7/16	1 7/16	4 3/64	3 3/16	1.5	
14	4.981	4.494	3.869	80SDS14	B	S	SDS	2	3 3/8	3/4	1 7/16	1 7/16	4 3/64	3 3/16	1.8	
15	5.304	4.810	4.158	80SK15	B	S	SK	2 5/8	3 3/8	1 1/4	2 1/16	2 1/16	1 15/64	3 7/8	2.5	
16	5.627	5.126	4.501	80SK16	B	S	SK	2 5/8	4 1/8	1 1/4	2 1/16	2 1/16	1 15/64	3 7/8	3.2	
17	5.949	5.442	4.794	80SK17	B	S	SK	2 5/8	4 3/8	1 1/4	2 1/16	2 1/16	1 15/64	3 7/8	3.9	
18	6.271	5.759	5.134	80SK18	B	S	SK	2 5/8	4 3/8	1 1/4	2 1/16	2 1/16	1 15/64	3 7/8	4.4	
19	6.593	6.076	5.430	80SK19	B	S	SK	2 5/8	4 3/8	1 1/4	2 1/16	2 1/16	1 15/64	3 7/8	4.7	
20	6.914	6.392	5.767	80SF20	B	S	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	5.6	
21	7.235	6.710	6.066	80SF21	B	S	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	6.1	
22	7.555	7.027	6.402	80SF22	B	S	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	6.6	
23	7.876	7.344	6.702	80SF23	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	7.3	
24	8.196	7.661	7.036	80SF24	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	7.8	
25	8.526	7.979	7.338	80SF25	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	8.4	
26	8.836	8.296	7.671	80SF26	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	8.8	
27	9.156	8.614	7.974	80SF27	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	9.9	
28	9.475	8.931	8.306	80SF28	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	10.3	
30	10.114	9.567	8.942	80SF30	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	11.6	
32	10.753	10.202	9.577	80SF32	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	13.3	
33	11.073	10.520	9.833	80SF33	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	13.5	
34	11.392	10.838	10.213	80SF34	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	15.0	
35	11.711	11.156	10.520	80SF35	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	15.7	
36	12.030	11.474	10.849	80SF36	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	16.7	
40	13.306	12.746	12.121	80SF40	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	20.7	
42	13.944	13.382	12.757	80SF42	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	22.6	
45	14.901	14.336	13.702	80SF45	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	25.0	
48	15.857	15.290	14.665	80SF48	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	29.3	
54	17.769	17.198	16.573	80SF54	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	36.6	
60	19.681	19.107	18.482	80SF60	B	E	SF	2 15/16	5	1 1/4	2 1/8	2 1/8	1 23/64	4 5/8	45.7	
70	22.867	22.289	21.664	80E70	C	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	7/8	6	61.9	
72	23.504	22.926	22.301	80E72	C	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	7/8	6	63.0	
80	26.052	25.471	24.846	80E80	C	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	7/8	6	80.0	
84	27.326	26.744	26.119	80E84	C	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	7/8	6	91.0	
96	31.147	30.563	29.938	80E96	C	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	7/8	6	116.0	
112	36.241	35.655	35.030	80F112	C	E	F	3 15/16	7	2 1/2	3 3/8	4	1	6 5/8	170.0	

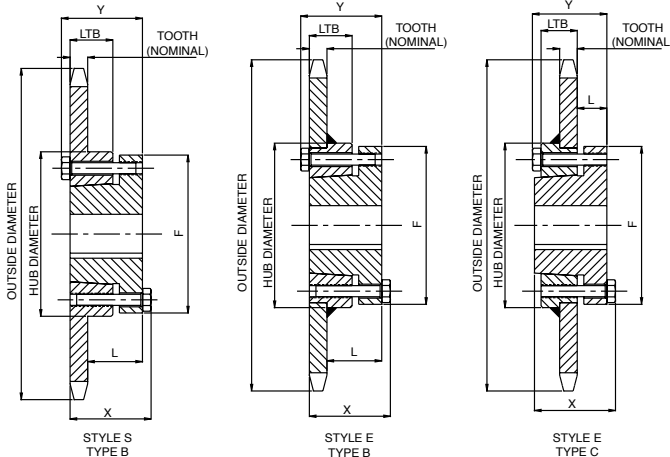
Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

“QD” Style Bushings				
Bushings	Bore Range (inches)			Weight (lbs.)
	Standard Keyway	Shallow Keyway	Without Keyway	
SH	1/2 - 1 5/8	1 1/16 - 1 15/16	1 11/16	0.7
SDS	1/2 - 2	1 11/16 - 1 15/16	2	1.0
SK	1/2 - 2 5/8	2 3/16 - 2 1/2	2 5/8 - 2 5/8	2.1
SF	1/2 - 2 15/16	2 5/16 - 2 15/16	2 19/16 - 2 19/16	3.1
E	7/8 - 3 1/2	2 15/16 - 3 1/2	-	7.1
F	1 - 4	3 5/16 - 3 15/16	4	8.7

Dimensional Data	
Single Strand Chain	80
Size	80
Pitch	1.000"
Chain Inside Width	0.625"
Roller Diameter	0.625"
Nominal Tooth Width	0.575"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).



All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B										
1" Pitch														
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Style	Hub	LTB	LTB Bushing (L)	OL	P	M	C	H	Weight (lbs.)
10	3.678	3.236	2.611	80H10	H1	3	1 1/2	1 1/4	2 3/32	1 21/64	0.575	21/32	2 1/2	1.2
11	4.006	3.550	2.888	80H11	H1	3	1 1/2	1 1/4	1 1/2	3/4	0.575	1/16	2 1/2	1.3
11	4.006	3.550	2.888	80P11	P1	4	1 1/2	1 15/16	2 11/32	1 17/32	0.575	5/32	3	1.6
12	4.332	3.864	3.239	80P12	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	2.0
13	4.657	4.179	3.523	80P13	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	2.4
14	4.981	4.494	3.869	80P14	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	2.6
14	4.981	4.494	3.869	80Q14	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	3 7/8	2.9
15	5.305	4.810	4.158	80P15	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	3.0
15	5.305	4.810	4.158	80Q15	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	3 7/8	3.4
16	5.627	5.126	4.501	80P16	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	3.5
16	5.627	5.126	4.501	80Q16	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	3 7/8	4.6
17	5.950	5.442	4.794	80P17	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	3.8
17	5.950	5.442	4.794	80Q17	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	3 7/8	5.3
18	6.271	5.759	5.134	80P18	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	4.4
18	6.271	5.759	5.134	80Q18	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	6.0
19	6.593	6.076	5.430	80P19	P1	4	1 5/16	1 15/16	2 3/16	1 3/8	0.575	-	3	4.9
19	6.593	6.076	5.430	80Q19	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	6.5
20	6.914	6.392	5.767	80Q20	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	7.0
21	7.235	6.710	6.066	80Q21	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	7.3
22	7.555	7.027	6.402	80Q22	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	8.2
23	7.876	7.344	6.702	80Q23	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	8.8
24	8.196	7.661	7.036	80Q24	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	9.1
25	8.516	7.979	7.338	80Q25	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	9.6
26	8.836	8.296	7.671	80Q26	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	10.6
27	9.156	8.614	7.974	80Q27	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	10.9
28	9.475	8.931	8.306	80Q28	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	12.4
29	9.795	9.249	8.611	80Q29	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	12.6
30	10.114	9.567	8.942	80Q30	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	13.4
31	10.434	9.884	9.247	80Q31	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	13.9
32	10.753	10.202	9.577	80Q32	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	14.8
33	11.072	10.520	9.883	80Q33	Q1	4	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	15.5

NO. 80 SINGLE SPLIT
TAPER 1" PITCH

NO. 80 DOUBLE SPLIT
TAPER 1" PITCH

When experience really matters

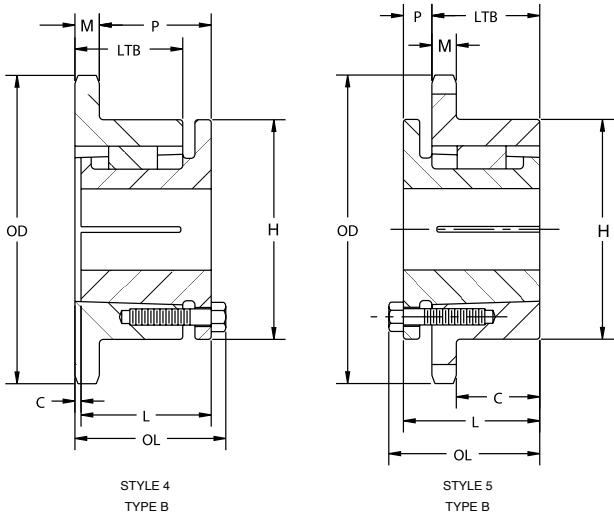
All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B										
1" Pitch				LTB										Weight (lbs.)
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Style	Hub	LTB	Bushing (L)	OL	P	M	C	H	
34	11.392	10.838	10.213	80Q34	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	16.3
35	11.711	11.156	10.520	80Q35	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	17.8
36	12.030	11.474	10.849	80Q36	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	18.1
36	12.030	11.474	10.849	80R36	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	19.5
37	12.349	11.792	11.156	80Q37	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	18.5
38	12.668	12.110	11.485	80Q38	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	20.0
39	12.987	12.428	11.792	80R39	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	22.8
40	13.306	12.746	12.121	80Q40	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	21.9
40	13.306	12.746	12.121	80R40	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	23.4
41	13.625	13.064	12.429	80R41	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	23.9
42	13.944	13.382	12.757	80Q42	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	23.8
42	13.944	13.382	12.757	80R42	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	25.4
44	14.582	14.018	13.393	80R44	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	27.2
45	14.901	14.336	13.702	80Q45	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	27.8
45	14.901	14.336	13.702	80R45	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	28.5
47	15.538	14.972	14.338	80R47	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	31.0
48	15.857	15.290	14.665	80Q48	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	30.8
48	15.857	15.290	14.665	80R48	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	32.3
50	16.495	15.926	15.301	80R50	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	35.1
54	17.769	17.198	16.573	80Q54	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	38.5
54	17.769	17.198	16.573	80R54	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	40.8
56	18.407	17.835	17.210	80R56	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	44.0
60	19.681	19.107	18.482	80Q60	4	Q1	1 3/4	2 1/2	2 25/32	1 15/16	0.575	-	4 1/2	46.8
60	19.681	19.107	18.482	80R60	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	47.3
70	22.867	22.289	21.664	80Q70	4	Q1	1 3/4	2 1/2	2 25/32	2 5/16	0.575	-	4 1/2	60.0
70	22.867	22.289	21.664	80R70	4	R1	2	2 7/8	3 5/32	2 5/16	0.575	-	5 3/4	63.5
72	23.504	22.926	22.301	80Q72	4	Q1	1 3/4	2 1/2	2 25/32	2 5/16	0.575	-	4 1/2	67.5
72	23.504	22.926	22.301	80R72	5	R1	2	2 7/8	3 5/32	7/8	0.575	1 7/16	5 3/4	69.4
80	26.052	25.471	24.846	80R80	5	R1	2	2 7/8	3 5/32	7/8	0.575	1 7/16	5 3/4	85.0
84	27.326	26.744	26.119	80R84	5	R1	2	2 7/8	3 5/32	7/8	0.575	1 7/16	5 3/4	90.0
96	31.147	30.563	29.938	80R96	5	R1	2	2 7/8	3 5/32	7/8	0.575	1 7/16	5 3/4	110.0
112	36.241	35.655	35.030	80S112	5	S1	3 5/16	4 3/8	4 3/4	1 1/8	0.575	2 3/4	6 3/4	165.0

Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data	
Single Strand Chain	80
Size	80
Pitch	1.000"
Chain Inside Width	0.625"
Roller Diameter	0.625"
Nom. Tooth Width	0.575"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type A, B and C											
1" Pitch				LTB											
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Type	Style	Hub	LTB	Bushing (L)	OL	P	M	C	H	Weight (lbs.)
13	4.657	4.179	3.523	D80P13	A	13	P1	1.71	1 15/16	2 19/32	5/8	1.710	13/32	-	3.6
14	4.981	4.494	3.869	D80Q14	C	16	Q2	2 3/4	3 1/2	4 5/8	1 3/4	1.710	27/32	4 1/2	5.4
15	5.305	4.810	4.158	D80Q15	B	12	Q2	2 3/4	3 1/2	3 25/32	1 3/4	1.710	-	3 7/8	5.4
16	5.627	5.126	4.501	D80Q16	A	13	Q1	1 3/4	2 1/2	2 25/32	3/4	1.710	-	-	4.8
17	5.950	5.442	4.794	D80Q17	A	13	Q1	1 3/4	2 1/2	2 25/32	3/4	1.710	-	-	6.0
18	6.271	5.759	5.134	D80Q18	A	13	Q1	1 3/4	2 1/2	2 25/32	3/4	1.710	-	-	7.3
19	6.593	6.076	5.430	D80Q19	A	13	Q1	1 3/4	2 1/2	2 25/32	3/4	1.710	-	-	8.5
20	6.914	6.392	5.767	D80R20	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 1/4	7.8
21	7.235	6.710	6.066	D80R21	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 1/4	9.4
22	7.555	7.027	6.402	D80R22	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	10.8
23	7.876	7.344	6.702	D80R23	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	12.3
24	8.196	7.661	7.036	D80R24	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	14.1
25	8.516	7.979	7.338	D80R25	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	15.8
26	8.836	8.296	7.671	D80R26	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	18.1
27	9.156	8.614	7.974	D80R27	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	20.4
28	9.475	8.931	8.306	D80R28	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	22.7
30	10.114	9.567	8.942	D80R30	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	26.8
36	12.030	11.471	10.849	D80R36	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	41.6
42	13.944	13.382	12.757	D80R42	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	58.0
45	14.901	14.366	13.702	D80R45	B	12	R1	2	2 7/8	3 5/32	1 5/32	1.710	-	5 3/4	68.0
48	15.857	15.290	14.665	D80R48	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	86.0
52	17.132	16.562	15.937	D80R52	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	103.0
54	17.769	17.198	16.573	D80R54	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	111.0
60	19.681	19.107	18.482	D80R60	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	135.0
68	22.230	21.653	21.028	D80R68	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	176.0
72	23.504	22.926	22.301	D80R72	B	15	R2	4	4 7/8	5 5/32	7/8	1.710	2 9/32	5 3/4	198.0
76	24.778	24.198	23.573	D80U76	B	15	U0	3 3/4	5 1/4	5 23/32	1 1/2	1.710	2 1/32	8 1/2	219.0
95	30.828	30.245	29.616	D80U95	B	15	U0	3 3/4	5 1/4	5 23/32	1 1/2	1.710	2 1/32	8 1/2	342.0

Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data

Double Strand Chain 80

Size 80-2

Pitch 1.000"

Chain Inside Width 0.625"

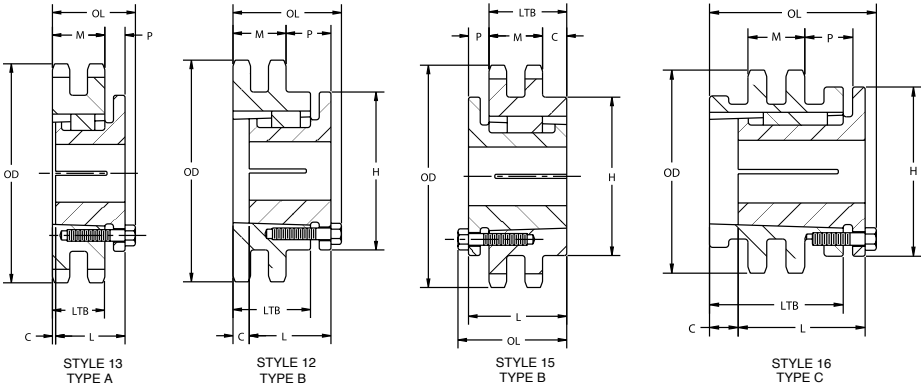
Roller Diameter 0.625"

Nominal Tooth Width 0.557"

Plate Thickness 1.710"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).



NO. 100 FINISHED BORE 1 1/4" PITCH

NO. 100 MULTIPLE STRAND 1 1/4" PITCH

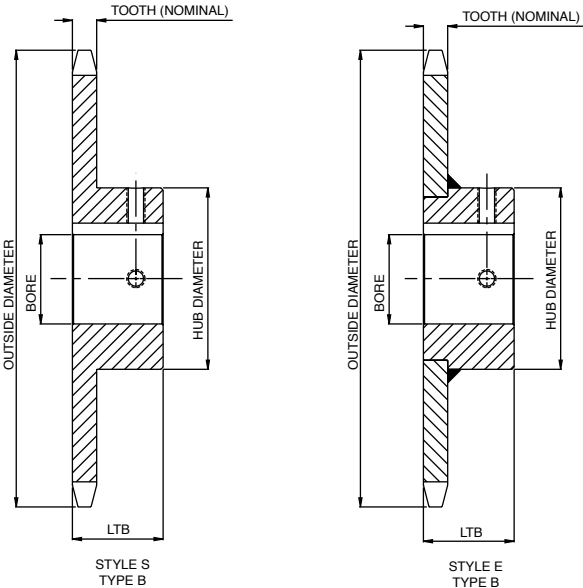
When experience really matters

All dimensions in inches unless otherwise stated.

Sprocket Diameters						Stock finished bores (including keyway and 2 set screws)					
No. of Teeth	Catalogue Number	Style	Outside Diameter	Pitch Diameter	Caliper Diameter						
1 1/4" Pitch											
8	100B8F	S	3.770	3.266	2.516	1	1 3/16	1 1/4			
9	100B9F	S	4.185	3.655	2.849	1	1 3/16	1 1/4	1 7/16		
10	100B10F	S	4.598	4.045	3.295	1	1 3/16	1 1/4	1 7/16		
11	100B11F	S	5.008	4.438	3.642	1	1 3/16	1 1/4	1 7/16	1 15/16	2
12	100B12F	S	5.415	4.830	4.080	1	1 3/16	1 1/4	1 7/16	1 15/16	2
13	100B13F	S	5.821	5.224	4.435	1	1 3/16	1 1/4	1 7/16	1 15/16	2
14	100B14F	S	6.226	5.618	4.868			1 1/4	1 7/16	1 15/16	2
15	100B15F	E	6.630	6.013	5.229			1 1/4	1 7/16	1 15/16	2
16	100B16F	E	7.034	6.408	5.658			1 1/4	1 7/16	1 15/16	2
17	100B17F	E	7.436	6.803	6.024			1 1/4	1 7/16	1 15/16	2
18	100B18F	E	7.839	7.199	6.449			1 1/4	1 7/16	1 15/16	2
19	100B19F	E	8.241	7.595	6.819			1 1/4	1 7/16	1 15/16	2
20	100B20F	E	8.643	7.990	7.240			1 1/4	1 7/16	1 15/16	2
21	100B21F	E	9.044	8.388	7.613			1 1/4	1 7/16	1 15/16	2
22	100B22F	E	9.444	8.784	8.034			1 1/4	1 7/16	1 15/16	2
23	100B23F	E	9.845	9.180	8.409			1 1/4	1 7/16	1 15/16	2
24	100B24F	E	10.245	9.576	8.826			1 1/4	1 7/16	1 15/16	2
25	100B25F	E	10.645	9.974	9.204			1 1/4	1 7/16	1 15/16	2

Hub diameters may vary to suit bore sizes. All finished bore sprockets are manufactured with keyway centerline of tooth.

Dimensional Data	
Single Strand Chain	100
Size	100
Pitch	1.250"
Chain Inside Width	0.750"
Roller Diameter	0.750"
Nominal Tooth Width	0.692"



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All dimensions in inches unless otherwise stated.

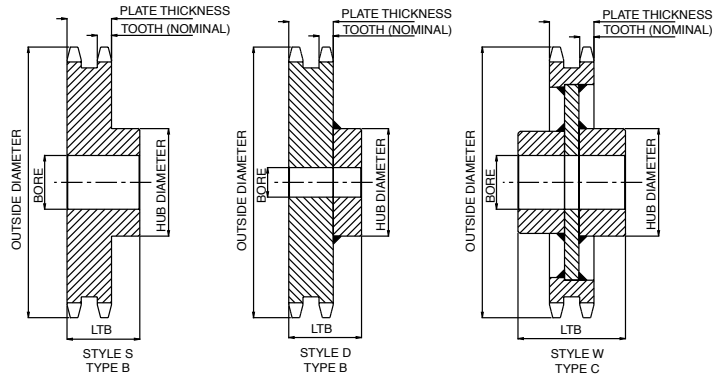
Sprocket Diameters					100-2								100-3							
1¼" Pitch					Double Strand (Type B and C)								Triple Strand (Type B and C)							
No. Teeth	Outside Dia.	Pitch Dia.	Caliper Dia.	Stock Bore	Catalogue Number	Type	Style	†Max Bore	*Hub Diameter	LTB	Weight (lbs.)	Catalogue Number	Type	Style	†Max Bore	*Hub Diameter	LTB	Weight (lbs.)		
9	4.185	3.655	2.849	1	D100B9	B	S	1½	2⅝ ₁₆	2⅞	4.4									
10	4.598	4.045	3.295	1	D100B10	B	S	1¾	2⅞ ₁₆	2⅞	6.0									
11	5.008	4.438	3.642	1	D100B11	B	S	2½	3⅝	2⅞	7.8	T100B11	B	S	2⅝	3⅝	4¼	11.5		
12	5.415	4.830	4.080	1⅝	D100B12	B	S	2⅞	3⅝	2⅞	9.3	T100B12	B	S	2⅞	3⅝	4¼	13.6		
13	5.821	5.224	4.435	1⅝	D100B13	B	S	2½	3¾	2⅞	11.3	T100B13	B	S	2½	3¾	4¼	16.7		
14	6.226	5.618	4.868	1⅝	D100B14	B	S	2¾	4⅝ ₁₆	2⅞	13.6	T100B14	B	S	2¾	4⅝ ₁₆	4¼	20.2		
15	6.630	6.013	5.229	1¼	D100B15	B	S	3⅝	4⅞ ₁₆	3⅝	16.8	T100B15	B	S	3⅝	4⅞ ₁₆	4½	27.5		
16	7.034	6.408	5.658	1¼	D100B16	B	S	3⅞ ₁₆	5	3⅝	19.7	T100B16	B	S	3⅞ ₁₆	5	4½	32.0		
17	7.436	6.803	6.024	1¼	D100B17	B	S	3½	5¼	3⅝	22.5	T100B17	B	S	3½	5¼	4½	36.3		
18	7.839	7.199	6.449	1¼	D100B18	B	S	3½	5¼	3⅝	24.8	T100B18	B	S	3½	5¼	4¾	41.8		
19	8.241	7.595	6.819	1¼	D100B19	B	S	3¾	5½	3⅝	29.4	T100B19	B	D	3¾	5½	4¾	46.5		
20	8.643	7.990	7.240	1¼	D100B20	B	S	3¾	5½	3⅝	32.0	T100B20	B	D	3¾	5½	4¾	51.0		
21	9.044	8.388	7.613	1¼	D100B21	B	S	3¾	5½	3⅝	34.8	T100B21	B	D	3¾	5½	4¾	55.8		
22	9.444	8.784	8.034	1¼	D100B22	B	D	3¾	5½	3⅝	37.2	T100B22	B	D	3¾	5½	4¾	60.8		
23	9.845	9.180	8.409	1¼	D100B23	B	D	3¾	5½	3⅝	40.3	T100B23	B	D	3¾	5½	4¾	66.0		
24	10.245	9.576	8.826	1¼	D100B24	B	D	3¾	5½	3⅝	43.4	T100B24	B	D	3¾	5½	4¾	71.6		
25	10.645	9.974	9.204	1¼	D100B25	B	D	3¾	5½	3⅝	46.7	T100B25	B	D	3¾	5½	4¾	77.3		
26	11.045	10.370	9.620	1¼	D100B26	B	D	3¾	5½	3⅝	50.2	T100B26	B	D	3¾	5½	4¾	83.2		
30	12.643	11.959	11.209	1¼	D100B30	B	D	3¾	5½	3⅝	65.4	T100B30	B	D	3¾	5½	4¾	109.7		
35	14.639	13.945	13.181	1⅝	D100C35	C	W	4	6	4½	88.0	T100C35	C	W	4	6	5	122.7		
36	15.038	14.343	13.593	1⅝	D100C36	C	W	4	6	4½	90.8	T100C36	C	W	4	6	5	137.4		
45	18.626	17.920	17.159	1⅝	D100C45	C	W	4	6	4½	117.7	T100C45	C	W	4	6	5	180.1		
60	24.601	23.884	23.134	2	D100C60	C	W	5	7½	5	193.1	T100C60	C	W	5	7½	5	279.7		
70	28.584	27.861	27.111	2	D100C70	C	W	5	7½	5	235.0	T100C70	C	W	5	7½	5	343.1		
80	32.565	31.839	31.089	2	D100C80	C	W	5	7½	5	281.8	T100C80	C	W	5	7½	5	413.0		

† Dimensions shown allow for standard keyway with set screw at 90°.
* Hub diameter may vary to suit bore size.

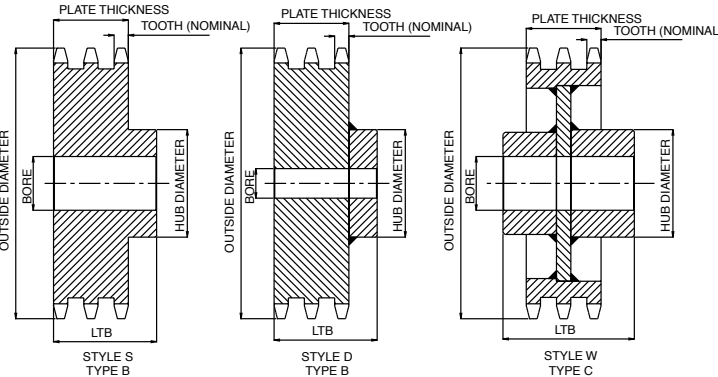
Dimensional Data	
Double Strand Chain	100
Size	100-2
Pitch	1.250"
Chain Inside Width	0.750"
Roller Diameter	0.750"
Nominal Tooth Width	0.669"
Plate Thickness	2.077"
Triple Strand Chain	100
Size	100-3
Pitch	1.250"
Chain Inside Width	0.750"
Roller Diameter	0.750"
Nominal Tooth Width	0.669"
Plate Thickness	3.485"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

Double Strand



Triple Strand



NO. 100 “QD” STYLE 1 1/4" PITCH

NO. 100 SINGLE SPLIT
TAPER 1 1/4" PITCH

When experience really matters

All dimensions in inches unless otherwise stated.

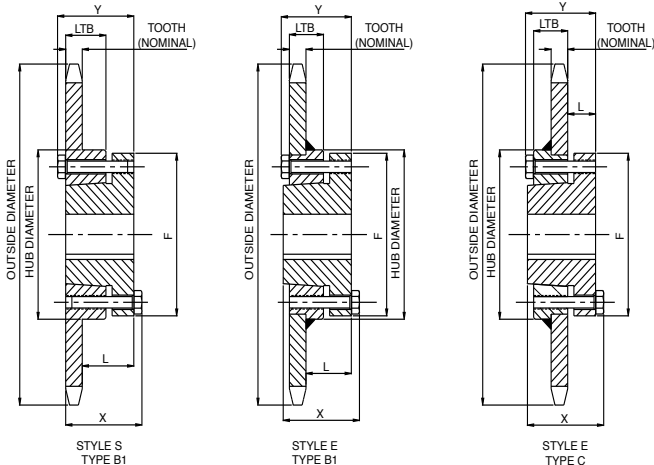
Sprocket Diameters					Type B, B ₁ and C										
1¼" Pitch															
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Type	Style	Bushing	Max. Bore	Hub Diameter	LTB	X	Y	L	F	Weight (lbs.)
11	5.008	4.438	3.642	100SDS11	B	S	SDS	2	3⅜	¾	1⅜	1⅜	⅝	3⅜	1.9
12	5.415	4.830	4.080	100SDS12	B	S	SDS	2	3½	¾	1⅜	1⅜	⅝	3⅜	2.4
13	5.821	5.224	4.435	100SK13	B	S	SK	2⅝	3⅝	1¼	2⅜	2⅜	1⅝	3⅞	3.3
14	6.226	5.618	4.868	100SK14	B	S	SK	2⅝	4¼	1¼	2⅜	2⅜	1⅝	3⅞	4.2
15	6.630	6.013	5.229	100SF15	B	S	SF	2⅝	4⅝	1¼	2⅜	2⅜	1⅝	4⅝	4.8
16	7.034	6.408	5.658	100SF16	B	S	SF	2⅝	5	1¼	2⅜	2⅜	1⅝	4⅝	5.9
17	7.436	6.803	6.024	100SF17	B	S	SF	2⅝	5	1¼	2⅜	2⅜	1⅝	4⅝	6.6
18	7.839	7.199	6.449	100E18	B ₁	S	E	3⅜	5⅝	1⅝	2⅝	2⅝	1⅞	6	8.9
19	8.241	7.595	6.819	100E19	B ₁	S	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	9.9
20	8.643	7.990	7.240	100E20	B ₁	S	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	11.4
21	9.044	8.388	7.613	100E21	B ₁	S	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	12.5
22	9.444	8.784	8.034	100E22	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	13.3
23	9.845	9.180	8.409	100E23	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	15.2
24	10.245	9.576	8.826	100E24	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	16.1
25	10.645	9.974	9.204	100E25	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	17.0
26	11.045	10.370	9.620	100E26	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	17.5
27	11.445	10.768	9.999	100E27	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	19.6
28	11.844	11.164	10.414	100E28	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	19.9
30	12.643	11.959	11.209	100E30	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	24.1
32	13.441	12.753	12.003	100E32	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	26.0
35	14.639	13.945	13.181	100E35	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	29.4
36	15.038	14.343	13.593	100E36	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	31.7
40	16.633	15.933	15.183	100E40	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	38.2
42	17.430	16.728	15.978	100E42	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	41.8
45	18.626	17.920	17.159	100E45	B ₁	E	E	3⅜	6¼	1⅝	2⅝	2⅝	1⅞	6	48.4
48	19.821	19.113	18.363	100E48	B ₁	E	E	3½	6¼	1⅝	2⅝	2⅝	1⅞	6	56.0
54	22.211	21.498	20.748	100E54	C	E	E	3½	6¼	1⅝	2⅝	2⅝	⅞	6	69.0
60	24.601	23.884	23.134	100E60	C	E	E	3½	6¼	1⅝	2⅝	2⅝	⅞	6	86.0
70	28.584	27.861	27.111	100F70	C	E	F	3⅝	7	2½	3⅝	4	1	6⅝	122.0
72	29.380	28.657	27.908	100F72	C	E	F	3⅝	7	2½	3⅝	4	1	6⅝	129.0
80	32.565	31.839	31.089	100F80	C	E	F	3⅝	7	2½	3⅝	4	1	6⅝	161.0
84	34.158	33.430	32.680	100F84	C	E	F	3⅝	7	2½	3⅝	4	1	6⅝	171.0

Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

“QD” Style Bushings				
Bushing	Bore Range (inches)			Weight (lbs.)
	Standard Keyway	Shallow Keyway	Without Keyway	
SDS	1/2 - 2	1 11/16 - 1 15/16	2	0.8
SK	1/2 - 2 5/8	2 3/16 - 2 1/2	2 9/16 - 2 5/8	0.7
SF	1/2 - 2 15/16	2 5/16 - 2 15/16	2 3/16 - 2 15/16	1.0
E	7/8 - 3 1/2	2 15/16 - 3 1/2	-	2.1
F	1 - 4	3 5/16 - 3 15/16	4	3.1

Dimensional Data	
Single Strand Chain	100
Size	100
Pitch	1.250"
Chain Inside Width	0.750"
Roller Diameter	0.750"
Nominal Tooth Width	0.692"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Sprocket Diameters				Type B										
1 1/4" Pitch				Catalogue Number										
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter		Style	Hub	LTB	LTB Bushing (L)	OL	P	M	C	H	Weight (lbs.)
11	5.007	4.438	3.642	100P11	4	P1	1 5/16	1 3/16	2 3/16	1 1/4	0.692	-	3	2.8
12	5.415	4.830	4.080	100Q12	4	Q1	1 3/4	2 1/2	2 27/32	1 7/8	0.692	1/16	3 7/8	3.5
13	5.821	5.224	4.435	100Q13	4	Q1	1 3/4	2 1/2	2 27/32	1 7/8	0.692	1/16	3 7/8	4.3
14	6.227	5.618	4.868	100Q14	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	3 7/8	5.6
15	6.631	6.013	5.229	100Q15	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	6.6
16	7.034	6.408	5.658	100Q16	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	7.4
17	7.437	6.803	6.024	100Q17	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	8.2
18	7.839	7.199	6.449	100Q18	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	9.0
19	8.241	7.595	6.819	100Q19	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	9.8
20	8.642	7.990	7.240	100Q20	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	10.9
21	9.043	8.388	7.613	100Q21	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	11.8
21	9.043	8.388	7.613	100R21	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	12.1
22	9.444	8.784	8.034	100Q22	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	12.6
23	9.844	9.180	8.409	100Q23	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	13.8
24	10.245	9.576	8.826	100Q24	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	15.4
24	10.245	9.576	8.826	100R24	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	15.6
25	10.645	9.974	9.204	100Q25	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	16.0
25	10.645	9.974	9.204	100R25	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	16.5
26	11.045	10.370	9.620	100Q26	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	17.3
26	11.045	10.370	9.620	100R26	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	17.9
27	11.444	10.768	9.999	100Q27	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	18.0
27	11.444	10.768	9.999	100R27	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	18.5
28	11.844	11.164	10.414	100Q28	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	19.6
28	11.844	11.164	10.414	100R28	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	20.1
30	12.643	11.959	11.209	100Q30	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	22.4
30	12.643	11.959	11.209	100R30	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	22.9
32	13.441	12.753	12.003	100Q32	4	Q1	1 3/4	2 1/2	2 25/32	1 13/16	0.692	-	4 1/2	25.3
32	13.441	12.753	12.003	100R32	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	26.5
35	14.639	13.945	13.181	100R35	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	30.2
40	16.633	15.933	15.183	100R40	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	40.9
42	17.430	16.728	15.978	100R42	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	44.3
45	18.626	17.920	17.159	100R45	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	50.5
48	19.821	19.113	18.363	100R48	4	R1	2	2 7/8	3 5/32	2 3/16	0.692	-	5 3/4	57.5
54	22.212	21.498	20.748	100R54	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	69.0
60	24.601	23.884	23.134	100R60	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	84.0
70	28.583	27.861	27.111	100R70	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	104.0
72	29.380	28.657	27.908	100R72	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	106.0
80	32.565	31.839	31.089	100R80	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	135.0
84	34.157	33.430	32.680	100R84	5	R1	2	2 7/8	3 5/32	7/8	0.692	1 5/16	5 3/4	138.0

NO. 100 DOUBLE SPLIT
TAPER 1 1/4" PITCH

NO. 120 “QD”
STYLE 1 1/2" PITCH

When experience really matters

All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B and C											
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	1 1/4" Pitch										Weight (lbs.)
					Type	Style	Hub	LTB	Bushing (L)	OL	P	M	C	H	
11	5.007	4.438	3.642	D100P11	A	14	P1	2.077	1 15/16	2 15/16	5/8	2.077	3/4	-	4.7
12	5.415	4.830	4.080	D100Q12	B	12	Q2	2 17/32	3 1/2	4 7/32	1 55/64	2.077	7/16	4	5.9
13	5.821	5.224	4.435	D100Q13	B	12	Q2	2 17/32	3 1/2	4 7/32	1 55/64	2.077	7/16	4	7.9
14	6.227	5.618	4.868	D100Q14	A	14	Q1	2.077	2 1/2	3 3/32	3/4	2.077	5/16	-	7.4
15	6.631	6.013	5.229	D100Q15	A	14	Q1	2.077	2 1/2	3 3/32	3/4	2.077	5/16	-	9.1
16	7.034	6.408	5.658	D100Q16	A	14	Q1	2.077	2 1/2	3 3/32	3/4	2.077	5/16	-	10.9
17	7.437	6.803	6.024	D100R17	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	10.0
18	7.839	7.199	6.449	D100R18	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	12.3
19	8.241	7.595	6.819	D100R19	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	14.9
20	8.642	7.990	7.240	D100R20	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	17.4
21	9.043	8.388	7.613	D100R21	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	20.3
22	9.444	8.784	8.034	D100R22	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	22.8
24	10.245	9.576	8.826	D100R24	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	29.5
35	14.639	13.945	13.181	D100R35	A	14	R1	2.077	2 7/8	3 7/32	7/8	2.077	1/16	-	76.8
45	18.626	17.920	17.159	D100S45	B	15	S1	3 5/16	4 3/4	4 3/4	1 1/16	2.077	1 15/64	6 3/4	138.0
60	24.601	23.884	23.134	D100S60	B	15	S1	3 5/16	4 3/4	4 3/4	1 1/16	2.077	1 15/64	6 3/4	251.0
70	28.583	27.861	27.111	D100S70	C	18	S2	5 11/16	6 3/4	7 1/8	2 3/16	2.077	2 1/4	6 3/4	358.0
80	32.565	31.839	31.089	D100S80	C	18	S2	5 11/16	6 3/4	7 1/8	2 3/16	2.077	2 1/4	6 3/4	431.0

Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data

Double Strand Chain 100

Size 100-2

Pitch 1.250"

Chain Inside Width 0.750"

Roller Diameter 0.750"

Nominal Tooth Width 0.669"

Plate Thickness 2.077"



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).

All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B, B ₁ and C											
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	1 1/2" Pitch										Weight (lbs.)
					Type	Style	Bushing	Max. Bore	Hub Diameter	LTB	X	Y	L	F	
12	6.498	5.796	4.921	120SF12	B	S	SF	2 15/16	4 3/8	1 1/4	2 3/16	2 3/16	1 1/64	4 5/8	4.6
13	6.986	6.269	5.347	120SF13	B	S	SF	2 15/16	4 5/8	1 1/4	2 3/16	2 3/16	1 1/64	4 5/8	5.9
14	7.472	6.741	5.866	120SF14	B	S	SF	2 15/16	5	1 1/4	2 3/16	2 3/16	1 1/64	4 5/8	7.3
15	7.956	7.215	6.300	120SF15	B	S	SF	2 15/16	5	1 1/4	2 3/16	2 3/16	1 1/64	4 5/8	8.1
16	8.441	7.689	6.814	120E16	B ₁	S	E	3 1/2	6 1/8	1 5/8	2 5/8	2 15/16	1 1/16	6	10.9
17	8.924	8.163	7.254	120E17	B ₁	S	E	3 1/2	6 1/8	1 5/8	2 5/8	2 15/16	1 1/16	6	12.1
18	9.407	8.639	7.764	120E18	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	14.7
19	9.890	9.114	8.207	120E19	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	15.8
20	10.371	9.588	8.713	120E20	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	18.8
21	10.853	10.065	9.161	120E21	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	19.3
22	11.333	10.541	9.666	120E22	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	21.8
23	11.814	11.016	10.115	120E23	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	23.3
24	12.294	11.492	10.617	120E24	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	25.7
25	12.774	11.969	11.070	120E25	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	27.2
26	13.254	12.444	11.569	120E26	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	30.3
28	14.213	13.397	12.522	120E28	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	35.2
30	15.171	14.351	13.476	120E30	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 1/16	6	39.3
32	16.130	15.303	14.428	120F32	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	50.9
35	17.567	16.734	15.842	120F35	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	63.2
36	18.045	17.211	16.336	120F36	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	65.0
40	19.959	19.119	18.244	120F40	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	77.0
42	20.916	20.073	19.198	120F42	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	90.0
45	22.352	21.504	20.615	120F45	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	95.0
48	23.786	22.935	22.060	120F48	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	109.0
54	26.654	25.797	24.922	120F54	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	135.0
60	29.522	28.661	27.786	120J60	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	172.0
70	34.301	33.434	32.559	120J70	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	231.0
80	39.078	38.207	37.332	120J80	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	313.0

Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

“QD” Style Bushings				
Bushing	Bore Range (inches)			Weight (lbs.)
	Standard Keyway	Shallow Keyway	Without Keyway	
SF	1/2 - 2 15/16	2 5/16 - 2 15/16	2 13/16 - 2 15/16	1.0
E	7/8 - 3 1/2	2 15/16 - 3 1/2	-	2.1
F	1 - 4	3 5/16 - 3 15/16	4	3.1
J	1 1/2 - 4 1/2	3 7/8 - 4 9/16	-	16.8

Dimensional Data

Single Strand Chain 120

Size 120

Pitch 1.500"

Chain Inside Width 1.000"

Roller Diameter 0.875"

Nominal Tooth Width 0.924"

60

61

NO. 120 SINGLE SPLIT
TAPER 1 1/2" PITCH

NO. 120 DOUBLE SPLIT
TAPER 1 1/2" PITCH

When experience really matters

All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B and C											
1 1/2" Pitch				Catalogue Number	Type	Style	Hub	LTB Bushing (L)					C	H	Weight (lbs.)
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter					LTB	OL	P	M				
11	6.009	5.325	4.395	120Q11	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	3 7/8	4.8
12	6.498	5.796	4.921	120Q12	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	3 7/8	6.3
13	6.986	6.269	5.347	120Q13	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	7.9
14	7.472	6.741	5.866	120Q14	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	9.2
15	7.957	7.215	6.300	120Q15	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	10.4
16	8.441	7.689	6.814	120Q16	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	12.0
16	8.441	7.689	6.814	120R16	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	12.2
17	8.924	8.163	7.254	120Q17	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	13.9
17	8.924	8.163	7.254	120R17	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	13.7
18	9.407	8.639	7.764	120Q18	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	15.0
18	9.407	8.639	7.764	120R18	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	15.2
19	9.889	9.114	8.207	120R19	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	16.9
20	10.371	9.588	8.713	120R20	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	18.8
21	10.852	10.065	9.161	120R21	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	20.7
22	11.333	10.541	9.666	120R22	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	22.5
23	11.813	11.016	10.115	120R23	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	24.3
24	12.294	11.492	10.617	120R24	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	27.1
25	12.774	11.969	11.070	120R25	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	29.1
26	13.254	12.444	11.569	120R26	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	33.3
28	14.213	13.397	12.522	120R28	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	38.0
30	15.172	14.351	13.476	120R30	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	43.3
32	16.130	15.303	14.428	120R32	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	49.4
35	17.566	16.734	15.842	120R35	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	68.0
36	18.045	17.211	16.336	120R36	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	72.0
40	19.959	19.119	18.244	120R40	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	82.0
40	19.959	19.119	18.244	120S40	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	83.0
42	20.916	20.073	19.198	120S42	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	90.0
45	22.351	21.504	20.615	120R45	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	102.0
45	22.351	21.504	20.615	120S45	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	100.0
48	23.786	22.935	22.060	120S48	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	111.0
54	26.654	25.797	24.922	120S54	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	138.0
60	29.522	28.661	27.786	120R60	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	179.0
60	29.522	28.661	27.786	120S60	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	180.0
70	34.300	33.434	32.559	120R70	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	148.0
70	34.300	33.434	32.559	120S70	B	5	S2	5 11/16	6 3/4	7 1/8	2 15/16	0.924	2 7/8	6 3/4	167.0
80	39.078	38.207	37.332	120R80	C	6	R2	4	4 7/8	5 5/32	1 15/16	0.924	2	5 3/4	291.0
80	39.078	38.207	37.332	120S80	C	6	S2	5 11/16	6 3/4	7 1/8	2 15/16	0.924	2 7/8	6 3/4	305.0

Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data

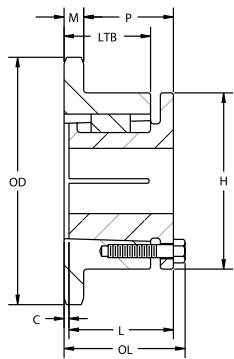
Single Strand Chain 120
Size 120
Pitch 1.500"
Chain Inside Width 1.000"
Roller Diameter 0.875"
Nominal Tooth Width 0.924"



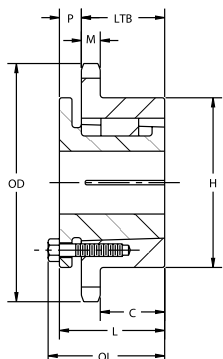
If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



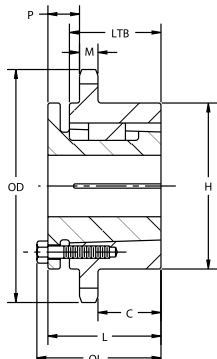
All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).



STYLE 4
TYPE B



STYLE 5
TYPE B



STYLE 6
TYPE C

All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B and C											
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	LTB										
					Type	Style	Hub	LTB	Bushing (L)	OL	P	M	C	H	Weight
15	7.957	7.215	6.3	D120R15	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	22
17	8.924	8.163	7.254	D120R17	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	31
18	9.407	8.639	7.764	D120R18	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	35
19	9.889	9.114	8.207	D120R19	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	41
22	11.333	10.541	9.666	D120R22	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	57
22	11.333	10.541	9.666	D120S22	B	15	S1	3 5/16	4 3/8	4 3/4	1 1/16	2.683	5/8	6 3/4	57
23	11.813	11.016	10.115	D120R23	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	64
24	12.294	11.492	10.617	D120R24	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	70
25	12.774	11.969	11.07	D120R25	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	77
26	13.254	12.444	11.569	D120R26	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	84
26	13.254	12.444	11.569	D120S26	B	15	S1	3 5/16	4 3/8	4 3/4	1 1/16	2.683	5/8	6 3/4	84
28	14.213	13.397	12.522	D120R28	A	14	R1	2 11/16	2 7/8	3 13/16	7/8	2.683	-	-	99
30	15.172	14.351	13.476	D120S30	B	15	S1	3 5/16	4 3/8	4 3/4	1 1/16	2.683	5/8	6 3/4	105
35	17.566	16.734	15.842	D120S35	B	15	S1	3 5/16	4 3/8	4 3/4	1 1/16	2.683	5/8	6 3/4	148
45	22.351	21.504	20.615	D120S45	C	18	S2	5 11/16	6 3/4	7 1/8	2 7/32	2.683	1 27/32	6 3/4	268
60	29.522	28.661	27.786	D120U60	B	15	U0	3 3/4	5 1/4	5 23/32	19/32	2.683	1 9/32	8 1/2	183

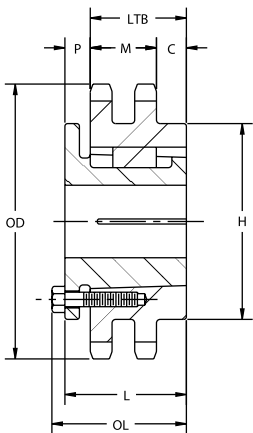
Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data

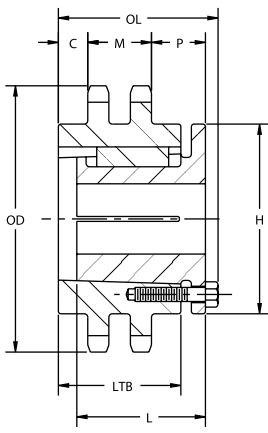
Double Strand Chain 120
Size 120-2
Pitch 1.500"
Chain Inside Width 1.000"
Roller Diameter 0.875"
Nominal Tooth Width 0.894"
Plate Thickness 2.683"



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



STYLE 15
TYPE B



STYLE 18
TYPE C

NO. 140 “QD” STYLE 1 3/4" PITCH

NO. 140 SPLIT
TAPER 1 3/4" PITCH

When experience really matters

All dimensions in inches unless otherwise stated.

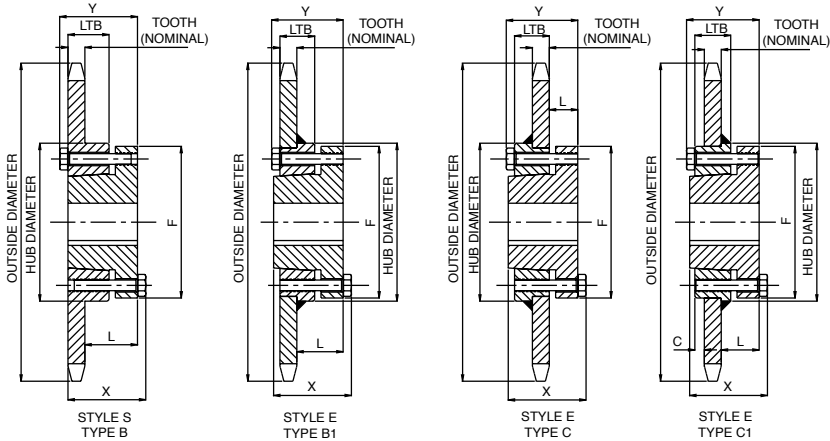
Sprocket Diameters				Type B, B ₁ , C and C ₁											
1 3/4" Pitch				Catalogue Number	Type	Style	Bushing	Max. Bore	Hub Diameter	LTB	X	Y	L	F	Weight (lbs.)
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter												
11	7.011	6.213	5.148	140SF11	B	S	SF	2 15/16	4 7/16	1 1/4	2 3/16	2 3/16	1 1/4	4 5/8	5.5
12	7.581	6.762	5.762	140SF12	B	S	SF	2 15/16	4 7/8	1 1/4	2 3/16	2 3/16	1 1/4	4 5/8	7.2
13	8.150	7.313	6.259	140SF13	B	S	SF	2 15/16	5	1 1/4	2 3/16	2 3/16	1 1/4	4 5/8	8.9
14	8.717	7.865	6.865	140E14	B ₁	S	E	3 1/2	6 1/8	1 5/8	2 5/8	2 15/16	1 5/8	6	11.6
15	9.282	8.418	7.371	140E15	B ₁	S	E	3 1/2	6 1/8	1 5/8	2 5/8	2 15/16	1 5/8	6	13.4
16	9.847	8.971	7.971	140E16	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	15.5
17	10.411	9.524	8.483	140E17	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	17.5
18	10.974	10.078	9.078	140E18	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	20.3
19	11.538	10.633	9.596	140E19	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	21.0
20	12.100	11.186	10.186	140E20	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	24.4
21	12.661	11.743	10.709	140E21	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	27.2
22	13.221	12.297	11.297	140E22	B ₁	E	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/8	6	29.4
23	13.783	12.852	11.822	140F23	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 5/8	6 5/8	36.9
24	14.343	13.407	12.407	140F24	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 5/8	6 5/8	41.1
25	14.903	13.963	12.935	140F25	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 5/8	6 5/8	42.6
26	15.463	14.518	13.518	140F26	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 5/8	6 5/8	46.7
30	17.700	16.742	15.742	140F30	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 5/8	6 5/8	50.6
35	20.494	19.523	18.503	140F35	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	75.0
36	21.053	20.080	19.080	140F36	C	E	F	3 15/16	7	2 1/2	3 5/8	4	1	6 5/8	79.0
40	23.286	22.306	21.306	140J40	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	105.0
45	26.077	25.088	24.072	140J45	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	140.1
48	27.750	26.758	25.758	140J48	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	148.0
54	31.096	30.097	29.097	140J54	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	178.0
60	34.442	33.437	32.437	140J60	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	234.0
70	40.017	39.006	38.006	140M70	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	2 29/32	9	239.0
80	45.591	44.574	43.574	140M80	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	2 29/32	9	432.0

Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

“QD” Style Bushings				
Bushing	Bore Range (inches)			Weight (lbs.)
	Standard Keyway	Shallow Keyway	Without Keyway	
SF	1/2 - 2 15/16	2 5/16 - 2 15/16	2 13/16 - 2 15/16	1.0
E	7/8 - 3 1/2	2 15/16 - 3 1/2	-	2.1
F	1 - 4	3 5/16 - 3 15/16	4	3.1
J	1 1/2 - 4 1/2	3 7/8 - 4 9/16	-	16.8
M	2 - 5 1/2	4 3/4 - 3 1/2	-	56.0

Dimensional Data	
Single Strand Chain	140
Size	140
Pitch	1.750"
Chain Inside Width	1.000"
Roller Diameter	1.000"
Nominal Tooth Width	0.924"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



All dimensions in inches unless otherwise stated.

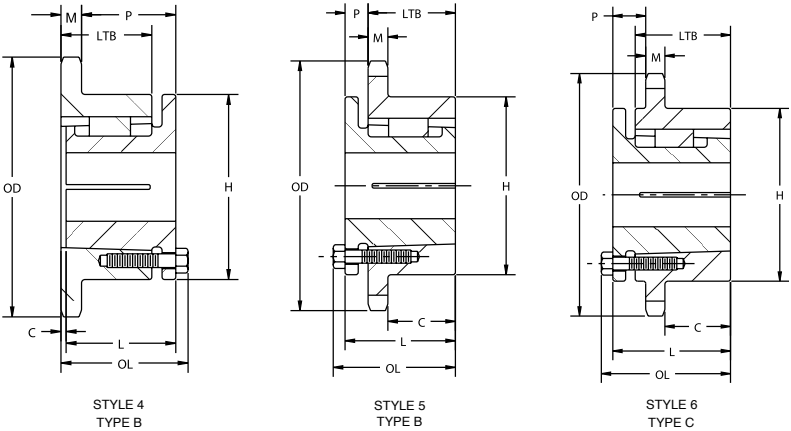
Sprocket Diameters					Type B and C										
1 3/4" Pitch					LTB										
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter	Catalogue Number	Type	Style	Hub	LTB	Bushing (L)	OL	P	M	C	H	Weight (lbs.)
11	7.010	6.213	5.148	140Q11	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	3 7/8	6.4
12	7.581	6.762	5.762	140Q12	B	4	Q1	1 3/4	2 1/2	2 25/32	1 9/16	0.924	-	4 1/2	9.0
13	8.150	7.313	6.259	140R13	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 13/16	11.1
14	8.717	7.865	6.865	140R14	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	12.6
15	9.283	8.418	7.371	140R15	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	14.7
16	9.848	8.971	7.971	140R16	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	16.5
17	10.412	9.524	8.483	140R17	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	18.5
18	10.975	10.078	9.078	140R18	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	20.5
19	11.537	10.633	9.596	140R19	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	23.0
20	12.099	11.186	10.186	140R20	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	25.4
21	12.660	11.743	10.709	140R21	B	4	R1	2	2 7/8	3 5/32	1 15/16	0.924	-	5 3/4	27.8
22	13.222	12.297	11.297	140R22	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	32.5
23	13.782	12.852	11.822	140R23	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	36.0
24	14.343	13.407	12.407	140R24	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	37.6
25	14.903	13.963	12.935	140R25	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	40.3
26	15.463	14.518	13.518	140R26	B	5	R1	2	2 7/8	3 5/32	7/8	0.924	1 1/16	5 3/4	44.0
30	17.700	16.742	15.742	140R30	C	5	R2	4	4 7/8	5 5/32	7/8	0.924	2	5 3/4	68.0
35	20.494	19.523	18.503	140R35	C	6	R2	4	4 7/8	5 5/32	7/8	0.924	2	5 3/4	88.0
36	21.053	20.080	19.080	140R36	C	6	R2	4	4 7/8	5 5/32	7/8	0.924	2	5 3/4	90.0
36	21.053	20.080	19.080	140S36	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	89.0
40	23.286	22.306	21.306	140R40	C	6	R2	4	4 7/8	5 5/32	7/8	0.924	2	5 3/4	109.0
40	23.286	22.306	21.306	140S40	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	107.0
45	26.076	25.088	24.072	140S45	B	5	S1	3 5/16	4 3/8	4 3/4	1 1/16	0.924	2 3/8	6 3/4	132.0
48	27.750	26.758	25.758	140S48	C	6	S2	5 11/16	6 3/4	7 1/2	2 15/16	0.924	2 7/8	6 3/4	169.0
54	31.096	30.097	29.097	140S54	C	6	S2	5 11/16	6 3/4	7 1/2	2 15/16	0.924	2 7/8	6 3/4	208.0
60	34.442	33.437	32.437	140S60	C	6	S2	5 11/16	6 3/4	7 1/2	2 15/16	0.924	2 7/8	6 3/4	230.0
70	40.017	39.006	38.006	140S70	C	6	S2	5 11/16	6 3/4	7 1/2	2 15/16	0.924	2 7/8	6 3/4	311.0
80	45.590	44.574	43.574	140S80	C	6	S2	5 11/16	6 3/4	7 1/2	2 15/16	0.924	2 7/8	6 3/4	242.0

Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data	
Single Strand Chain	140
Size	140
Pitch	1.750"
Chain Inside Width	1.000"
Roller Diameter	1.000"
Nominal Tooth Width	0.924"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).



NO. 160 “QD” STYLE 2" PITCH

NO. 160 SPLIT
TAPER 2" PITCH

When experience really matters

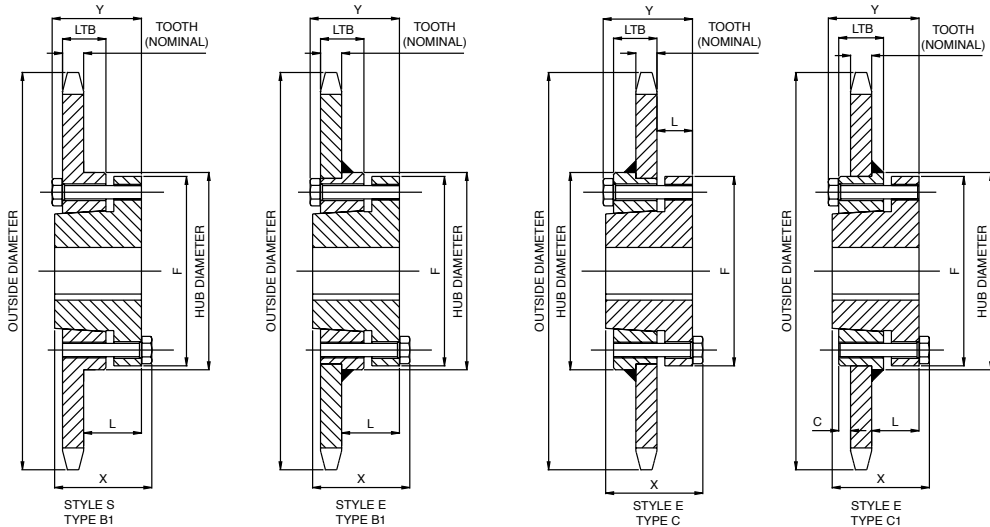
All dimensions in inches unless otherwise stated.

Sprocket Diameters				Type B ₁ , C and C ₁											
2" Pitch				Catalogue Number	Type	Style	Bushing	Max. Bore	Hub Diameter	LTB	X	Y	L	F	Weight (lbs.)
No. Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter												
12	8.664	7.728	6.603	160E12	B ₁	S	E	3 1/2	5 11/16	1 5/8	2 5/8	2 15/16	1 5/16	6	11.2
13	9.314	8.358	7.171	160E13	B ₁	S	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/16	6	14.2
14	9.962	8.988	7.863	160E14	B ₁	S	E	3 1/2	6 1/4	1 5/8	2 5/8	2 15/16	1 5/16	6	17.4
15	10.608	9.620	8.442	160F15	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	24.7
16	11.254	10.252	9.127	160F16	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	29.0
17	11.898	10.844	9.713	160F17	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	30.7
18	12.542	11.518	10.393	160F18	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	33.8
19	13.186	12.152	10.985	160F19	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	37.9
20	13.828	12.784	11.659	160F20	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	43.0
21	14.470	13.420	12.256	160F21	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	45.9
22	15.110	14.054	12.929	160F22	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	51.1
23	15.752	14.688	13.529	160F23	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	54.8
24	16.392	15.322	14.197	160F24	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	60.4
25	17.032	15.958	14.801	160F25	B ₁	E	F	3 15/16	7	2 1/2	3 5/8	4	2 9/16	6 5/8	64.6
26	17.672	16.592	15.467	160J26	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	77.0
28	18.950	17.862	16.737	160J28	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	86.0
30	20.228	19.134	18.009	160J30	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	110.0
35	23.422	22.312	21.164	160J35	C	E	J	4 7/16	8	3 3/16	4 1/2	5	1 3/16	7 1/4	131.0
40	26.612	25.492	24.367	160M40	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	196.0
45	29.802	28.672	27.529	160M45	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	237.0
54	35.538	34.396	33.271	160M54	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	325.0
60	39.362	38.214	37.089	160M60	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	378.0
70	45.734	44.578	43.453	160M70	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	505.0
80	52.104	50.942	49.817	160M80	C ₁	E	M	5 1/2	10	5 3/16	6 3/4	6 3/4	1 19/32	9	671.0

Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

“QD” Style Bushings				
Bushing	Bore Range (inches)			Weight (lbs.)
	Standard Keyway	Shallow Keyway	Without Keyway	
E	7/8 - 3 1/2	2 15/16 - 3 1/2	-	2.1
F	1 - 4	3 5/16 - 3 15/16	4	3.1
J	1 1/2 - 4 1/2	3 7/8 - 4 9/16	-	16.8
M	2 - 5 1/2	4 3/4 - 3 1/2	-	56.0

Dimensional Data	
Single Strand Chain	160
Size	160
Pitch	2.000"
Chain Inside Width	1.250"
Roller Diameter	1.125"
Nominal Tooth Width	1.156"



Sprocket Diameters				Type B and C										
2" Pitch				Catalogue Number	Type	Style	Hub	LTB Bushing (L)						Weight (lbs.)
No. of Teeth	Outside Diameter	Pitch Diameter	Caliper Diameter					LTB	OL	P	M	C	H	
11	8.011	7.100	5.902	160R11	B	4	R1	2 1/4	2 7/8	3 13/32	1 31/32	1.156	1/4	5 13/16 10.8
12	8.664	7.728	6.603	160R12	B	4	R1	2 1/4	2 7/8	3 13/32	1 31/32	1.156	1/4	5 3/4 14.2
13	9.314	8.358	7.171	160R13	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 15.5
14	9.963	8.988	7.863	160R14	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 18.5
15	10.609	9.620	8.442	160R15	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 21.6
16	11.255	10.252	9.127	160R16	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 25.0
17	11.899	10.844	9.713	160R17	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 28.0
18	12.543	11.518	10.393	160R18	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 31.9
19	13.185	12.152	10.985	160R19	B	4	R1	2	2 7/8	3 5/32	1 23/32	1.156	-	5 3/4 35.9
20	13.828	12.784	11.659	160R20	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 51.0
21	14.469	13.420	12.256	160R21	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 56.0
22	15.110	14.054	12.929	160R22	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 60.0
23	15.751	14.688	13.529	160R23	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 65.0
24	16.392	15.322	14.197	160R24	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 71.5
25	17.032	15.958	14.801	160R25	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 74.0
26	17.671	16.592	15.467	160R26	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 79.0
26	17.671	16.592	15.467	160S26	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 78.0
28	18.950	17.862	16.737	160R28	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 99.8
28	18.950	17.862	16.737	160S28	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 98.7
30	20.229	19.134	18.009	160R30	C	6	R2	4	4 7/8	5 5/32	1 23/32	1.156	2	5 3/4 115.0
30	20.229	19.134	18.009	160S30	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 114.0
35	23.422	22.312	21.164	160S35	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 150.0
40	26.612	25.492	24.367	160S40	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 165.0
45	29.801	28.672	27.529	160S45	C	6	S2	5 11/16	6 3/4	7 1/8	2 23/32	1.156	2 7/8	6 3/4 204.0
60	39.362	38.214	37.089	160U60	C	6	U0	3 3/4	5 1/4	5 25/32	1 21/32	1.156	1 15/16	8 1/2 354.0
70	45.733	44.578	43.453	160U70	C	6	U0	3 3/4	5 1/4	5 25/32	1 21/32	1.156	1 15/16	8 1/2 308.0
80	52.103	50.942	49.817	160U80	C	6	U1	5 5/8	7 1/8	7 19/32	2 19/32	1.156	2 7/8	8 1/2 394.0

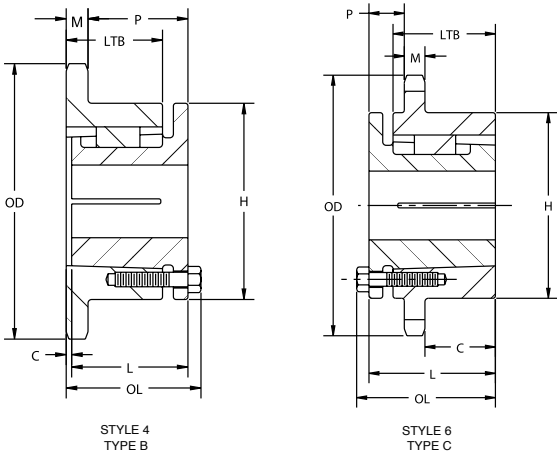
Construction may not be exactly as shown. Solid or welded construction for sprockets may be substituted. Minor envelope variations may occur. Other bushing sizes and mounting directions available. Specify bushing size and mounting direction (hub or plate side) when ordering.

Dimensional Data

Single Strand Chain **160**
Size 160
Pitch 2.000"
Chain Inside Width 1.250"
Roller Diameter 1.125"
Nominal Tooth Width 1.156"

If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

All Tsubaki stock sprockets have hardened teeth (Rockwell C35 minimum).



MILL CHAIN SPROCKETS

When toughness really matters

WH78/WR78 2.609" Pitch / 0.840" Barrel Diameter / *1" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	0.94	78A8	9	78B8	15	78C8	20	2.75	6.82
9	1.25	78A9	11	78B9	20	78C9	28	3.19	7.63
10	1.25	78A10	14	78B10	23	78C10	31	3.19	8.44
11	1.25	78A11	17	78B11	26	78C11	34	3.19	9.26
12	1.25	78A12	20	78B12	29	78C12	37	3.19	10.08
13	1.50	78A13	23	78B13	34	78C13	44	3.44	10.90
14	1.50	78A14	27	78B14	36	78C14	45	3.44	11.72
15	1.50	78A15	31	78B15	41	78C15	51	3.44	12.55
16	1.50	78A16	35	78B16	46	78C16	56	3.44	13.37
17	1.50	78A17	39	78B17	53	78C17	67	3.44	14.20
18	1.50	78A18	44	78B18	67	78C18	90	3.94	15.03
19	1.50	78A19	49	78B19	72	78C19	95	3.94	15.85
20	1.50	78A20	54	78B20	78	78C20	101	3.94	16.68
21	1.50	78A21	60	78B21	83	78C21	106	3.94	17.51
22	1.50	78A22	66	78B22	89	78C22	112	3.94	18.33
23	1.50	78A23	72	78B23	95	78C23	118	3.94	19.16
24	1.50	78A24	78	78B24	101	78C24	124	3.94	19.99
25	1.50	78A25	85	78B25	108	78C25	131	3.94	20.82
26	1.50	78A26	91	78B26	115	78C26	138	3.94	21.65
27	1.50	78A27	99	78B27	122	78C27	145	3.94	22.47
28	1.50	78A28	106	78B28	129	78C28	152	3.94	23.30
29	1.50	78A29	114	78B29	137	78C29	160	3.94	24.13
30	1.50	78A30	122	78B30	145	78C30	168	3.94	24.96
32	1.50	78A32	138	78B32	162	78C32	185	3.94	26.62
35	1.50	78A35	165	78B35	189	78C35	212	3.94	29.11

*7/8" plate thickness is available upon request. Please specify plate thickness when placing order.

WH78XHD/WR78XHD 2.636" Pitch / 1" Barrel Diameter / 1" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	0.94	78XHDA8	10	78XHDB8	13	78XHDC8	15	2.44	6.89
9	1.25	78XHDA9	13	78XHDB9	18	78XHDC9	23	2.99	7.71
10	1.25	78XHDA10	16	78XHDB10	21	78XHDC10	26	3.19	8.53
12	1.25	78XHDA12	23	78XHDB12	28	78XHDC12	33	3.19	10.19
14	1.50	78XHDA14	31	78XHDB14	38	78XHDC14	45	3.44	11.85
15	1.50	78XHDA15	35	78XHDB15	42	78XHDC15	49	3.44	12.68
16	1.50	78XHDA16	40	78XHDB16	47	78XHDC16	54	3.44	13.51
17	1.50	78XHDA17	45	78XHDB17	52	78XHDC17	59	3.44	14.35
18	1.50	78XHDA18	50	78XHDB18	63	78XHDC18	75	3.94	15.18
20	1.50	78XHDA20	62	78XHDB20	74	78XHDC20	86	3.94	16.85



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



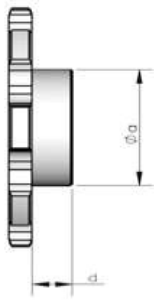
Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

81X 2.609" Pitch / 0.906" Barrel Diameter / 0.875" Plate Thickness

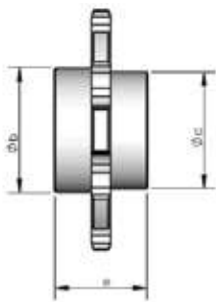
All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	0.94	81XA8	8	81XB8	11	81XC8	14	2.44	6.82
9	1.25	81XA9	10	81XB9	13	81XC9	16	2.94	7.63
10	1.25	81XA10	12	81XB10	18	81XC10	23	3.19	8.44
11	1.25	81XA11	14	81XB11	20	81XC11	25	3.19	9.26
12	1.25	81XA12	17	81XB12	23	81XC12	28	3.19	10.08
13	1.50	81XA13	23	81XB13	36	81XC13	49	3.44	10.90
14	1.50	81XA14	27	81XB14	40	81XC14	53	3.44	11.73
15	1.50	81XA15	31	81XB15	45	81XC15	58	3.44	12.55
16	1.50	81XA16	35	81XB16	49	81XC16	62	3.44	13.37
17	1.50	81XA17	39	81XB17	53	81XC17	66	3.44	14.20
18	1.50	81XA18	44	81XB18	67	81XC18	89	3.94	15.03
19	1.50	81XA19	49	81XB19	72	81XC19	94	3.94	15.85
20	1.50	81XA20	54	81XB20	77	81XC20	99	3.94	16.68
21	1.50	81XA21	60	81XB21	83	81XC21	105	3.94	17.51
22	1.50	81XA22	66	81XB22	89	81XC22	111	3.94	18.33
23	1.50	81XA23	72	81XB23	95	81XC23	117	3.94	19.16
24	1.50	81XA24	78	81XB24	101	81XC24	123	3.94	19.99
25	1.50	81XA25	84	81XB25	107	81XC25	130	3.94	20.82
26	1.50	81XA26	92	81XB26	114	81XC26	136	3.94	21.65
27	1.50	81XA27	98	81XB27	121	81XC27	144	3.94	22.47
28	1.50	81XA28	106	81XB28	129	81XC28	151	3.94	23.30
29	1.50	81XA29	113	81XB29	136	81XC29	158	3.94	24.13
30	1.50	81XA30	121	81XB30	144	81XC30	166	3.94	24.96
32	1.50	81XA32	138	81XB32	161	81XC32	183	3.94	26.62
35	1.50	81XA35	165	81XB35	188	81XC35	210	3.94	29.11

2.609" pitch						
Hub	Finished bore range	Hub O.D.			Hub length	
		B style	C style		B style	C style
			Major	Minor		
		a	b	c	d	e
B or C style solid hubs						
(BC)N102	1.7/16 - 2.15/16	5.250	5.250	5.125	1.500	3.875
(BC)N103	1.15/16 - 3.7/16	5.500	5.500	5.375	1.687	4.250
(BC)N104	1.15/16 - 3.15/16	6.500	6.500	6.375	2.062	5.000
B or C style split hubs						
S(C)N2	1.7/16 - 1.15/16	4.375	4.375	4.250	1.250	3.500
S(C)N3	1.15/16 - 2.7/8	6.000	6.000	5.875	1.375	3.750
S(C)N4	2.15/16 - 3.7/16	7.625	7.625	7.500	1.500	4.000
S(C)N5	3.15/16	9.250	9.250	9.125	2.000	5.000



B STYLE



C STYLE



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

WH82/WR82

3.075" Pitch / 1" Barrel Diameter / 1.125" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.25	82A8	16	82B8	24	82C8	32	3.19	8.04
9	1.25	82A9	20	82B9	28	82C9	36	3.19	8.99
10	1.25	82A10	25	82B10	33	82C10	40	3.19	9.95
11	1.25	82A11	30	82B11	38	82C11	45	3.19	10.92
12	1.25	82A12	35	82B12	38	82C12	41	3.19	11.88
13	1.50	82A13	41	82B13	51	82C13	60	3.44	12.85
14	1.50	82A14	48	82B14	58	82C14	67	3.44	13.82
15	1.50	82A15	55	82B15	65	82C15	74	3.44	14.79
16	1.50	82A16	62	82B16	72	82C16	81	3.44	15.76
17	1.50	82A17	70	82B17	91	82C17	112	3.44	16.74
18	1.50	82A18	79	82B18	106	82C18	132	3.94	17.71
19	1.50	82A19	88	82B19	115	82C19	141	3.94	18.68
20	1.50	82A20	97	82B20	124	82C20	150	3.94	19.66
21	1.50	82A21	107	82B21	134	82C21	160	3.94	20.63
22	1.50	82A22	117	82B22	144	82C22	170	3.94	21.61
23	1.50	82A23	128	82B23	155	82C23	181	3.94	22.58
24	1.50	82A24	139	82B24	166	82C24	193	3.94	23.56
25	1.50	82A25	151	82B25	183	82C25	214	4.44	24.54
26	1.50	82A26	163	82B26	195	82C26	226	4.44	25.51
27	1.50	82A27	176	82B27	208	82C27	239	4.44	26.49
28	1.50	82A28	189	82B28	221	82C28	252	4.44	27.46
29	1.50	82A29	203	82B29	235	82C29	266	4.44	28.44
30	1.50	82A30	217	82B30	249	82C30	280	4.44	29.42

WH82XHD/WR82XHD

3.075" Pitch / 1.250" Barrel Diameter / 1.125" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.25	82XHDA8	16	82XHDB8	24	82XHDC8	32	3.19	8.04
9	1.25	82XHDA9	20	82XHDB9	28	82XHDC9	36	3.19	8.99
10	1.25	82XHDA10	25	82XHDB10	33	82XHDC10	40	3.19	9.95
11	1.25	82XHDA11	30	82XHDB11	38	82XHDC11	45	3.19	10.92
12	1.25	82XHDA12	35	82XHDB12	38	82XHDC12	41	3.19	11.88
14	1.50	82XHDA14	48	82XHDB14	58	82XHDC14	67	3.44	13.82
15	1.50	82XHDA15	55	82XHDB15	65	82XHDC15	74	3.44	14.79
16	1.50	82XHDA16	62	82XHDB16	72	82XHDC16	81	3.44	15.76
17	1.50	82XHDA17	70	82XHDB17	91	82XHDC17	112	3.44	16.74
18	1.50	82XHDA18	79	82XHDB18	106	82XHDC18	132	3.94	17.71
20	1.50	82XHDA20	97	82XHDB20	124	82XHDC20	150	3.94	19.66
21	1.50	82XHDA21	107	82XHDB21	134	82XHDC21	160	3.94	20.63
22	1.50	82XHDA22	117	82XHDB22	144	82XHDC22	170	3.94	21.61
24	1.50	82XHDA24	139	82XHDB24	166	82XHDC24	193	3.94	23.56
25	1.50	82XHDA25	151	82XHDB25	183	82XHDC25	214	4.44	24.54
28	1.50	82XHDA28	186	82XHDB28	221	82XHDC28	252	4.44	27.46
30	1.50	82XHDA30	217	82XHDB30	249	82XHDC30	280	4.44	29.42

WH78-4

3.075" Pitch / 1" Barrel Diameter / 1.125" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	78-4A8	24	78-4B8	38	78-4C8	52	3.44	10.45
9	1.50	78-4A9	30	78-4B9	44	78-4C9	58	3.44	11.70
10	1.50	78-4A10	37	78-4B10	51	78-4C10	65	3.44	12.94
12	1.50	78-4A12	53	78-4B12	76	78-4C12	99	3.94	15.46
14	1.50	78-4A14	72	78-4B14	95	78-4C14	118	3.94	17.98
15	1.50	78-4A15	82	78-4B15	106	78-4C15	129	3.94	19.24
16	1.50	78-4A16	94	78-4B16	117	78-4C16	140	3.94	20.50
17	1.50	78-4A17	106	78-4B17	134	78-4C17	161	4.19	21.77
18	1.50	78-4A18	118	78-4B18	146	78-4C18	173	4.19	23.04
20	1.50	78-4A20	146	78-4B20	174	78-4C20	201	4.19	25.57

 If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

 Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

 Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

WH124/WR124 4" Pitch / 1.25" Barrel Diameter / 1.50" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	124A8	30	124B8	40	124C8	49	3.44	10.45
9	1.50	124A9	38	124B9	47	124C9	56	3.44	11.70
10	1.50	124A10	47	124B10	56	124C10	65	3.44	12.94
11	1.50	124A11	56	124B11	73	124C11	89	3.94	14.20
12	1.50	124A12	67	124B12	83	124C12	99	3.94	15.46
13	1.50	124A13	78	124B13	95	124C13	111	3.94	16.71
14	1.50	124A14	90	124B14	107	124C14	123	3.94	17.98
15	1.50	124A15	103	124B15	120	124C15	136	3.94	19.24
16	1.50	124A16	117	124B16	134	124C16	150	3.94	20.50
17	1.50	124A17	132	124B17	160	124C17	187	4.19	21.77
18	1.50	124A18	148	124B18	176	124C18	203	4.19	23.04
19	1.50	124A19	165	124B19	193	124C19	220	4.19	24.30
20	1.50	124A20	182	124B20	210	124C20	237	4.19	25.57
21	1.50	124A21	201	124B21	233	124C21	265	4.44	26.84
22	1.50	124A22	220	124B22	253	124C22	285	4.44	28.11
24	1.50	124A24	262	124B24	294	124C24	326	4.44	30.65
25	1.50	124A25	284	124B25	316	124C25	348	4.44	31.92
26	1.50	124A26	307	124B26	346	124C26	384	4.94	33.19
28	1.50	124A28	356	124B28	395	124C28	433	4.94	35.73
30	1.50	124A30	408	124B30	447	124C30	485	4.94	38.27

WH124XHD/WR124XHD 4.063" Pitch / 1.75" Barrel Diameter / 1.50" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	124XHDA8	38	124XHDB8	53	124XHDC8	68	3.94	10.62
9	1.50	124XHDA9	47	124XHDB9	63	124XHDC9	78	3.94	11.88
10	1.50	124XHDA10	58	124XHDB10	73	124XHDC10	88	3.94	13.15
11	1.50	124XHDA11	70	124XHDB11	85	124XHDC11	100	3.94	14.42
12	1.50	124XHDA12	82	124XHDB12	106	124XHDC12	129	4.44	15.70
13	1.50	124XHDA13	96	124XHDB13	120	124XHDC13	143	4.44	16.98
14	1.50	124XHDA14	112	124XHDB14	135	124XHDC14	158	4.44	18.26
15	1.50	124XHDA15	128	124XHDB15	151	124XHDC15	174	4.44	19.54
16	1.50	124XHDA16	145	124XHDB16	168	124XHDC16	191	4.44	20.83
17	1.50	124XHDA17	163	124XHDB17	206	124XHDC17	248	5.44	22.11
18	1.50	124XHDA18	183	124XHDB18	226	124XHDC18	268	5.44	23.40
19	1.50	124XHDA19	204	124XHDB19	246	124XHDC19	288	5.44	24.69
20	1.50	124XHDA20	226	124XHDB20	268	124XHDC20	310	5.44	25.97
21	1.50	124XHDA21	249	124XHDB21	291	124XHDC21	333	5.44	27.26
22	1.50	124XHDA22	273	124XHDB22	315	124XHDC22	357	5.44	28.55
24	1.50	124XHDA24	324	124XHDB24	367	124XHDC24	409	5.44	31.13
25	1.50	124XHDA25	352	124XHDB25	394	124XHDC25	436	5.44	32.42
26	1.50	124XHDA26	380	124XHDB26	424	124XHDC26	468	5.44	33.71
28	1.50	124XHDA28	440	124XHDB28	485	124XHDC28	529	5.44	36.29
30	1.50	124XHDA30	505	124XHDB30	550	124XHDC30	594	5.44	38.87



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

MILL CHAIN SPROCKETS

When toughness really matters

WH111 4.760" Pitch / 1.25" Barrel Diameter / 2.25" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	111A8	78	111B8	99	111C8	119	4.44	12.44
9	1.50	111A9	97	111B9	118	111C9	138	4.44	13.92
10	1.50	111A10	119	111B10	140	111C10	160	4.44	15.40
11	1.50	111A11	143	111B11	164	111C11	184	4.44	16.90
12	1.50	111A12	170	111B12	191	111C12	211	4.44	18.39
13	1.50	111A13	198	111B13	225	111C13	251	5.44	19.89
14	1.50	111A14	230	111B14	256	111C14	282	5.44	21.39
15	1.50	111A15	263	111B15	289	111C15	315	5.44	22.89
16	1.50	111A16	299	111B16	325	111C16	351	5.44	24.40
17	1.50	111A17	336	111B17	381	111C17	425	5.44	25.91
18	1.50	111A18	377	111B18	421	111C18	465	5.44	27.41
19	1.50	111A19	420	111B19	464	111C19	508	5.44	28.92
20	1.50	111A20	464	111B20	509	111C20	553	5.44	30.43
21	1.50	111A21	512	111B21	556	111C21	600	5.44	31.94
22	1.50	111A22	561	111B22	606	111C22	650	5.44	33.45
24	1.50	111A24	667	111B24	712	111C24	756	5.44	36.47
25	1.50	111A25	724	111B25	768	111C25	812	5.44	37.98
28	1.50	111A28	607	111B28	801	111C28	995	5.44	42.51
30	1.50	111A30	1040	111B30	1099	111C30	1157	5.94	45.54

WH106/WR106 6" Pitch / 1.25" Barrel Diameter / 1.50" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	106A8	69	106B8	93	106C8	117	4.44	15.68
9	1.50	106A9	86	106B9	111	106C9	135	4.44	17.54
10	1.50	106A10	105	106B10	131	106C10	157	4.44	19.42
11	1.50	106A11	126	106B11	160	106C11	193	5.44	21.30
12	1.50	106A12	150	106B12	183	106C12	216	5.44	23.18
13	1.50	106A13	210	106B13	254	106C13	298	5.44	25.07
14	1.50	106A14	243	106B14	287	106C14	331	5.44	26.96
15	1.50	106A15	278	106B15	323	106C15	367	5.44	28.86
16	1.50	106A16	316	106B16	361	106C16	405	5.44	30.76
17	1.50	106A17	357	106B17	401	106C17	445	5.44	32.65
18	1.50	106A18	399	106B18	443	106C18	487	5.44	34.55
19	1.50	106A19	445	106B19	489	106C19	533	5.44	36.45
20	1.50	106A20	210	106B20	239	106C20	267	5.44	38.36
21	1.50	106A21	243	106B21	272	106C21	300	5.94	40.26
22	1.50	106A22	278	106B22	307	106C22	335	5.94	42.16
24	1.50	106A24	316	106B24	345	106C24	373	5.94	45.97

WH106XHD/WR106XHD 6.050" Pitch / 1.75" Barrel Diameter / 1.50" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	106XHDA8	83	106XHDB8	110	106XHDC8	137	5.44	15.81
9	1.50	106XHDA9	105	106XHDB9	132	106XHDC9	158	5.44	17.69
10	1.50	106XHDA10	128	106XHDB10	155	106XHDC10	182	5.44	19.58
11	1.50	106XHDA11	154	106XHDB11	193	106XHDC11	232	5.94	21.47
12	1.50	106XHDA12	183	106XHDB12	222	106XHDC12	260	5.94	23.38
14	1.50	106XHDA14	247	106XHDB14	286	106XHDC14	325	5.94	27.19
15	1.50	106XHDA15	283	106XHDB15	322	106XHDC15	361	5.94	29.10
16	1.50	106XHDA16	322	106XHDB16	376	106XHDC16	429	6.50	31.01
18	1.50	106XHDA18	406	106XHDB18	460	106XHDC18	513	6.50	34.84
20	1.50	106XHDA20	500	106XHDB20	554	106XHDC20	608	6.50	38.67



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.



If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.



Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

WH132/WR132 6.050" Pitch / 1.75" Barrel Diameter / 2.75" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	132A8	153	132B8	179	132C8	205	5.44	15.81
9	1.50	132A9	192	132B9	218	132C9	244	5.44	17.69
10	1.50	132A10	235	132B10	261	132C10	287	5.44	19.58
11	1.50	132A11	283	132B11	318	132C11	352	5.94	21.47
12	1.50	132A12	335	132B12	370	132C12	404	5.94	23.38
13	1.50	132A13	392	132B13	427	132C13	461	5.94	25.28
14	1.50	132A14	453	132B14	488	132C14	522	5.94	27.19
15	1.50	132A15	519	132B15	554	132C15	588	5.94	29.10
16	1.50	132A16	590	132B16	644	132C16	697	6.50	31.01

WH155 6.050" Pitch / 1.75" Barrel Diameter / 2.75" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	155A8	153	155B8	220	155C8	287	5.94	15.81
9	1.50	155A9	192	155B9	227	155C9	261	5.94	17.69
10	1.50	155A10	235	155B10	270	155C10	304	5.94	19.58
11	1.50	155A11	283	155B11	337	155C11	390	6.50	21.47
12	1.50	155A12	335	155B12	389	155C12	443	6.50	23.38
13	1.50	155A13	392	155B13	446	155C13	500	6.50	25.28
14	1.50	155A14	453	155B14	507	155C14	561	6.50	27.19
15	1.50	155A15	519	155B15	573	155C15	627	6.50	29.10
16	1.50	155A16	590	155B16	644	155C16	697	6.50	31.01

WH132XHD/WR132XHD 6.050" Pitch / 1.75" Barrel Diameter / 2.75" Plate Thickness

All dimensions in inches unless otherwise stated.

Number of Teeth	Stock Bore	Type A		Type B		Type C		Type B and C	
		Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Catalogue Number	Approx. Weight (lbs.)	Maximum Bore	Pitch Diameter
8	1.50	132XHDA8	153	132XHDB8	201	132XHDC8	248	5.44	15.81
9	1.50	132XHDA9	191	132XHDB9	239	132XHDC9	287	5.44	17.69
10	1.50	132XHDA10	235	132XHDB10	283	132XHDC10	330	5.44	19.58
11	1.50	132XHDA11	283	132XHDB11	343	132XHDC11	403	5.94	21.47
12	1.50	132XHDA12	335	132XHDB12	396	132XHDC12	456	5.94	23.38
13	1.50	132XHDA13	392	132XHDB13	453	132XHDC13	513	5.94	25.28
14	1.50	132XHDA14	453	132XHDB14	514	132XHDC14	574	5.94	27.19
15	1.50	132XHDA15	519	132XHDB15	580	132XHDC15	640	5.94	29.10
16	1.50	132XHDA16	589	132XHDB16	664	132XHDC16	739	6.50	31.01

 Lightening holes available on request for most sprockets.

 If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

 Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

 Lightening holes available on request for most sprockets.

 If the sprocket needed is not listed above, please contact Tsubaki for made-to-order custom sprockets.

 Mill chain sprockets can be supplied with A, B or C idlers with 1 or 2 urethane bushings (split or solid construction) and 1 or 2 bearings.

DRAG CHAIN SPROCKETS

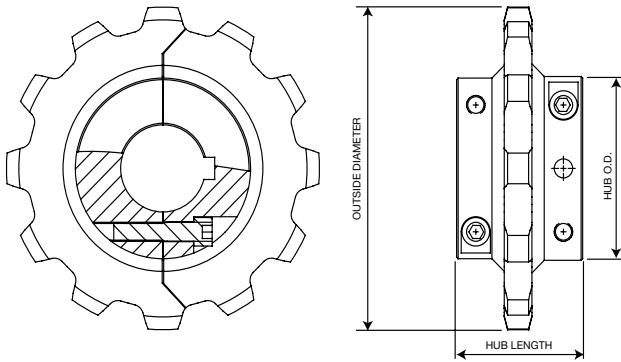


Sprocket Number	Pitch	Tooth Face	No. of Teeth	Catalogue Number	Maximum Bore	Pitch Diameter
WD102	5.000	6.375	6	WD102-6	3.9375	10.00
			8	WD102-8	5.9375	13.07
			9	WD102-9	5.9375	14.62
			10	WD102-10	5.9375	16.18
			12	WD102-12	5.9375	19.32
			13	WD102-13	5.9375	20.89
WD104	6.000	4.125	8	WD104-8	4.9375	15.68
			9	WD104-9	5.9375	17.54
			10	WD104-10	5.9375	19.42
			11	WD104-11	5.9375	21.30
WD110 and WD113	6.000	9.000	6	WD110-113-6	4.4375	12.00
			8	WD110-113-8	5.9375	15.68
			9	WD110-113-9	5.9375	17.54
			10	WD110-113-10	5.9375	19.42
			11	WD110-113-11	5.9375	21.30
WD112	8.000	9.000	7	WD112-7	4.9375	18.44
			8	WD112-8	5.9375	20.90
			9	WD112-9	5.9375	23.39
WD116	8.000	13.000	7	WD116-7	5.4375	18.44
			8	WD116-8	5.9375	20.90
			9	WD116-9	5.9375	23.39
WD118	8.000	13.000	7	WD118-7	5.4375	18.44
			8	WD118-8	5.9375	20.90
			9	WD118-9	5.9375	23.39
WD120	6.000	8.750	6	WD120-6	5.9375	12.00
			8	WD120-8	5.9375	15.68
			11	WD120-11	5.9375	21.30
WD122	8.000	8.750	6	WD122-6	5.4375	16.00
			7	WD122-7	5.4375	18.44
			9	WD122-9	5.9375	23.39
WD480	8.000	11.000	6	WD480-6	5.4375	16.00
			7	WD480-7	5.4375	18.44
			8	WD480-8	5.9375	20.90
			9	WD480-9	5.9375	23.39
			11	WD480-11	5.9375	28.40

SPLIT & IDLER SPROCKETS

When efficiency really matters

SPLIT SPROCKET



All dimensions in inches unless otherwise stated.

Hub Number	Available Finished Bore Sizes	Hub Outside Diameter	Hub Length	Bolts	Weight (lbs.)
SCT-3	1 7/16, 1 15/16, 2 3/16, 2 7/16	6	4 3/4	5/8 x 3	34
SCT-4	2 15/16, 3 7/16	7 1/4	5 1/8	3/4 x 3 1/4	46
SCT-6	3 15/16	9 1/4	6	1 x 4 1/2	86

Chart shows finished bores only. Hubs can also be supplied with urethane and bronze bushings.

SPLIT ADJUSTABLE SPROCKET

- Fast and accurate sprocket tooth/chain roller positioning at installation, or when a chain is forced off the sprockets due to jam-ups.
- Fast and simple rim replacement when rim is worn out.
- Split hub adjustable sprockets are ideal for applications with long shafts running 2 or more strands of chain.

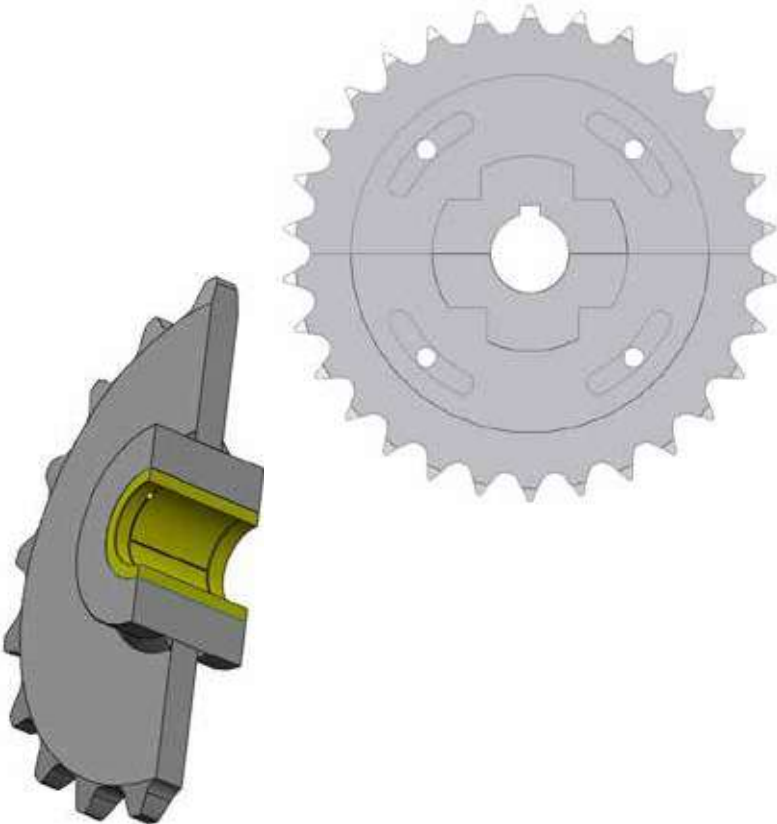
IDLER SPROCKET

Tsubaki offers a variety of different types of idler sprockets to fit a variety of applications, including the following standard types:

- Ball Bearing Idlers
- Needle Bearing Idlers
- Non-Metallic Idlers (Nylon/Nyloil, Delrin, Urethane and other bushed idlers using custom materials)

Bronze Bush

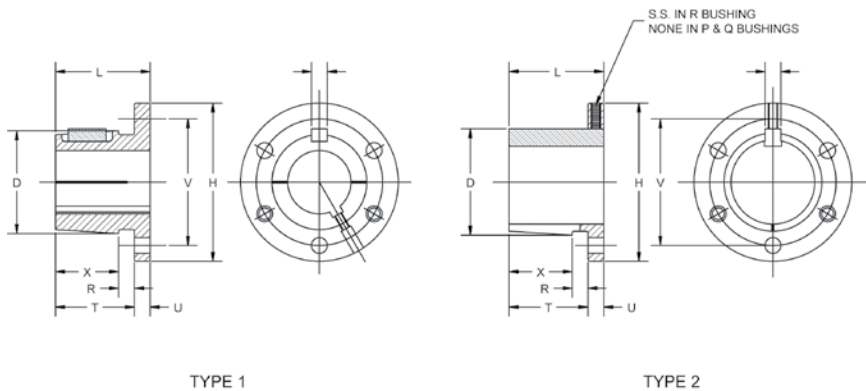
- Under 2" uses self lube bronze bushing materials
- Over 2" uses grease port drilled in hub to spiral bronze bush



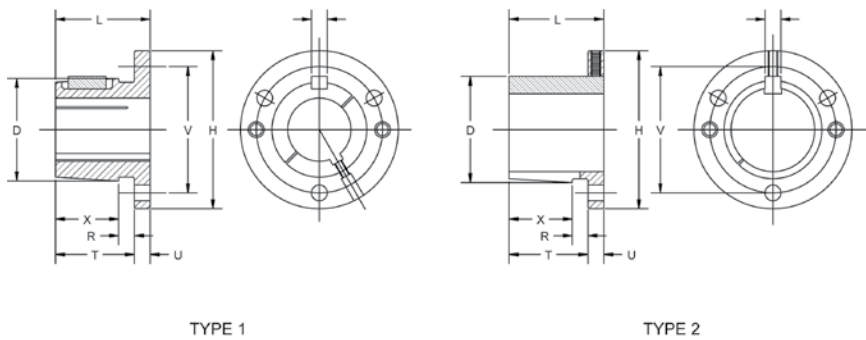
SPLIT TAPER BUSHINGS

When compatibility really matters

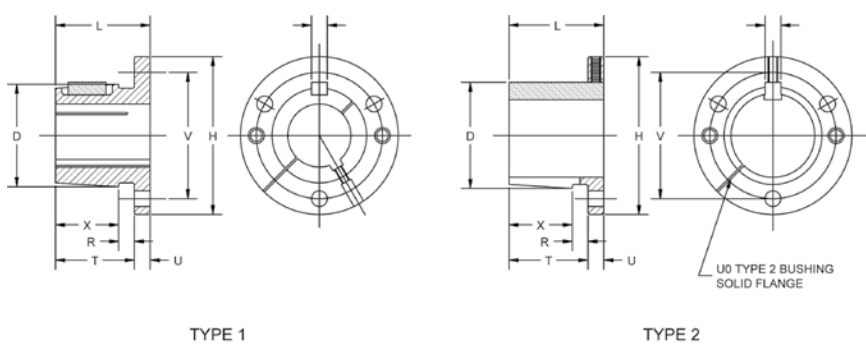
B, P, Q & R Bushings



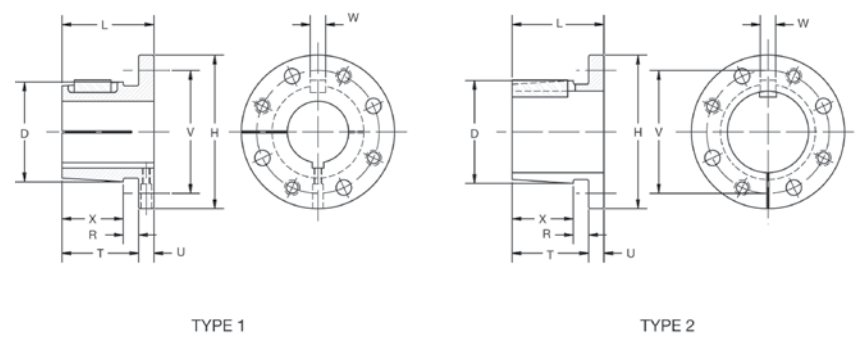
S Bushings



U Bushings



W Bushings



ASME (ANSI) Split Taper Bushings

All dimensions in inches unless otherwise stated.

Hub Number	Dimensions										Bore Range		Cap Screws		Approx. Weight (lbs.)	Wrench Torque in. lbs.
	L	U	T	D		H	V	W	X	R	Type 1	Type 2	No.	Size		
				Large End	Small End											
G1	1	1/4	3/4	1.1720	1.1330	2	1 9/16	-	5/8	1/8	3/8 - 15/16	1	2	1/4 x 5/8	0.5	95
H1	1 1/4	1/4	1	1.6250	1.5700	2 1/2	2	-	7/8	1/8	3/8 - 1 3/8	1 7/16 - 1 1/2	2	1/4 x 3/4	0.8	95
P1	1 15/16	13/32	1 17/32	1.9375	1.8555	3	2 7/16	3/8	1 5/16	7/32	1/2 - 1 7/16	1 1/2 - 1 3/4	3	5/16 x 1	1.3	192
P2	2 15/16	13/32	2 17/32	1.9375	1.7930	3	2 7/16	3/8	2 5/16	7/32	3/4 - 1 7/16	1 1/2 - 1 3/4	3	5/16 x 1	1.5	192
B	1 15/16	1/2	1 7/16	2.6250	2.5567	3 11/16	3 1/8	1/2	1 3/16	1/4	1/2 - 1 15/16	2 - 2 7/16	3	5/16 x 1 1/4	1.8	192
Q1	2 1/2	17/32	1 31/32	2.8750	2.7657	4 1/8	3 3/8	1/2	1 3/4	7/32	3/4 - 2 1/16	2 1/8 - 2 11/16	3	3/8 x 1 1/4	3.5	348
Q2	3 1/2	17/32	2 31/32	2.8750	2.7032	4 1/8	3 3/8	1/2	2 3/4	7/32	1 - 2 1/16	2 1/8 - 2 5/8	3	3/8 x 1 1/4	4.5	348
R1	2 7/8	5/8	2 1/4	4.0000	3.8750	5 3/8	4 5/8	3/4	2	1/4	1 1/8 - 2 13/16	2 7/8 - 3 3/4	3	3/8 x 1 3/4	7.5	348
R2	4 7/8	5/8	4 1/4	4.0000	3.7500	5 3/8	4 5/8	3/4	4	1/4	1 3/8 - 2 13/16	2 7/8 - 3 5/8	3	3/8 x 1 3/4	11	348
S1	4 3/8	3/4	3 5/8	4.6250	4.4180	6 3/8	5 3/8	3/4	3 5/16	5/16	1 11/16 - 3 3/16	3 1/4 - 4 1/4	3	1/2 x 2 1/4	14	840
S2	6 3/4	3/4	6	4.6250	4.2696	6 3/8	5 3/8	3/4	5 11/16	5/16	1 7/8 - 3 3/16	3 1/4 - 4 3/16	3	1/2 - 2 1/4	19	840
U0	5 1/4	1 1/16	4 3/16	6.0000	5.7656	8 3/8	7	1 1/4	3 3/4	7/16	2 3/8 - 3 1/16	-	3	5/8 x 2 3/4	30	1680
U0	4 15/16	3/4	4 3/16	6.0000	5.7656	8 3/8	7	1 1/4	3 3/4	7/16	3 1/4 - 4 1/4	4 3/8 - 5 1/2	3	5/8 x 2 3/4	27	1680
U1	7 1/8	1 1/16	6 1/16	6.0000	5.6485	8 3/8	7	1 1/4	5 5/8	7/16	2 3/8 - 4 1/4	4 3/8 - 5 1/2	3	5/8 x 2 3/4	40	1680
U2	10 1/8	1 1/16	9 1/16	6.0000	5.4610	8 3/8	7	1 1/4	5 5/8	7/16	2 7/16 - 4 1/4	4 3/8 - 5	3	5/8 x 2 3/4	50	1680
W1	8 1/4	1 7/16	6 13/16	8.5000	6.1018	12 1/2	10	1 1/4	6 3/8	7/16	3 3/8 - 6 3/16	6 1/4 - 7 7/16	4	3/4 x 3	104	3000
W2	11 1/4	1 7/16	9 13/16	8.5000	7.9144	12 1/2	10	1 1/4	9 3/8	7/16	3 3/8 - 6 3/16	6 1/4 - 7 7/16	4	3/4 x 3	133	3000

Metric Split Taper Bushings

All dimensions in inches unless otherwise stated.

Bore Range	14	15	16	18	19	20	22	24	25	28	30	32	35	36	38
Keyway (mm)	5 x 5	5 x 5	5 x 5	6 x 6	6 x 6	6 x 6	6 x 6	8 x 7	8 x 7	8 x 7	8 x 7	10 x 8	10 x 8	10 x 8	10 x 8
G	X		X	X	X	X	X	X	X						
H	X		X	X	X	X	X	X	X	X	X	X	X	X	X
P1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B				X	X	X	X	X	X	X	X	X	X	X	X
Q1				X	X	X	X	X	X	X	X	X	X	X	X
R1										X	X	X	X	X	X
R2													X	X	X

Note - X denotes that the Split Taper Bushing is also available with metric bore size/keyway. All metric bores are supplied with imperial threads. All bushings can be supplied in steel, stainless steel and other materials. Consult Tsubaki for more details.

Metric Split Taper Bushings

All dimensions in inches unless otherwise stated.

Bore Range	39	40	42	45	48	50	55	60	65	70	75	80	85	90	95
Keyway (mm)	12 x 8	12 x 8	12 x 8	14 x 9	14 x 9	14 x 9	16 x 10	18 x 11	18 x 11	20 x 12	20 x 12	22 x 14	22 x 14	25 x 14	25 x 14
G															
H															
P1	X	X	X												
B	X	X	X	X	X	X	X	X	X						
Q1	X	X	X	X	X	X	X	X	X	X					
R1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S1			X	X	X	X	X	X	X	X	X	X	X	X	X

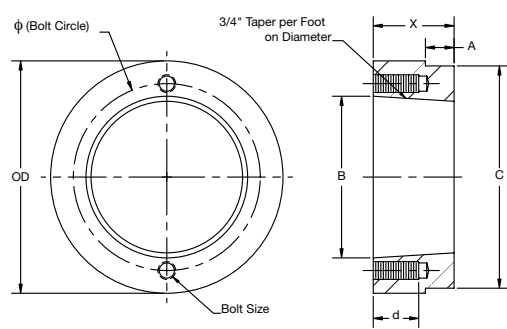
Note - X denotes that the Split Taper Bushing is also available with metric bore size/keyway. All metric bores are supplied with imperial threads. All bushings can be supplied in steel, stainless steel and other materials. Consult Tsubaki for more details.

SPLIT TAPER HUBS

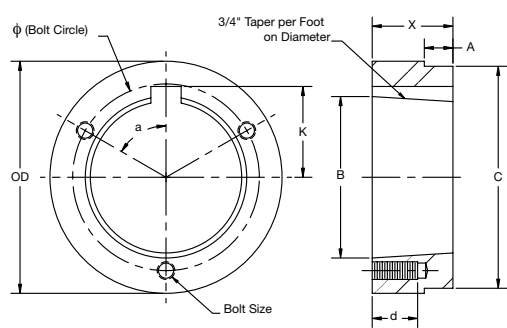
Tsubaki offers a complete line of Split Taper style weld-on hubs for insertion and welding to produce “B” style sprockets, sheaves and other applications without hub protrusion. To provide greater strength for this type of shaft locking mechanism and reduce heat distortion caused by welding, these hubs are dimensionally the same as our sprocket items. Special dimension hubs are available on a Made-to-Order basis. All Tsubaki hubs are made from steel bar stock (not powdered or sintered metal). The Split Taper style weld-on hubs listed below include appropriate tapered bores and mounting holes.

All dimensions in inches unless otherwise stated.

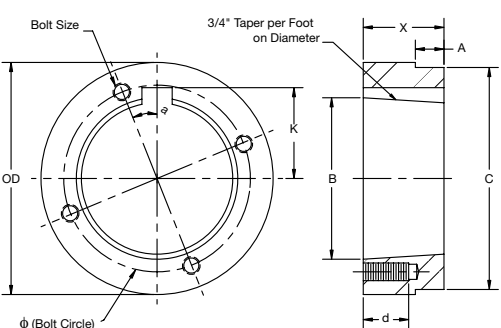
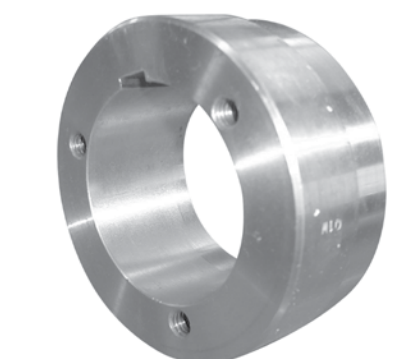
Hub	Bushing										Tapped Holes			Weight (lbs.)
		O.D.	A	B	C	K	V	W	X	a(°)	d	No.	Size	
G1W	G	2	0.174	1.168	1.875	-	1 9/16	-	5/8	-	5/8	2	1/4 - 20	0.4
H1W	H	2 1/2	0.174	1.621	2.375	-	2	-	7/8	-	7/8	2	1/4 - 20	0.6
P1W	P1	3	0.292	1.9375	2.875	1 3/32	2 7/16	3/8	1 5/16	60	5/8	3	5/16 - 18	1.4
P2W	P2	3	1.100	1.9375	2.875	1 3/32	2 7/16	3/8	2 5/16	60	5/8	3	5/16 - 18	2.5
B1W	B	3 7/8	0.292	2.623	3.750	1 7/16	3 1/8	1/2	1 5/16	60	13/16	3	5/16 - 18	2.3
B2W	B	4 1/2	0.709	2.623	4.375	1 7/16	3 1/8	1/2	1 3/4	60	13/16	3	5/16 - 18	4.7
Q1W	Q1	4 1/2	0.709	2.875	4.375	1 9/16	3 3/8	1/2	1 3/4	60	7/8	3	3/8 - 16	4.4
Q2W	Q2	4 1/2	1.606	2.875	4.375	1 9/16	3 3/8	1/2	2 3/4	60	7/8	3	3/8 - 16	6.9
R1W	R1	5 3/4	0.709	4.000	5.625	2 3/16	4 5/8	3/4	2	60	1 1/8	3	3/8 - 16	7.3
R2W	R2	5 3/4	1.606	4.000	5.625	2 3/16	4 5/8	3/4	4	60	1 1/8	3	3/8 - 16	15
S1W	S1	6 3/4	0.946	4.625	6.500	2 9/16	5 3/8	3/4	3 5/16	60	1 5/8	3	1/2 - 13	17
S2W	S2	6 3/4	2.963	4.625	6.500	2 9/16	5 3/8	3/4	5 11/16	60	1 5/8	3	1/2 - 13	30
U0W	U0	8 1/2	2.000	6.000	8.250	3 1/4	7	1 1/4	3 3/4	60	2	3	5/8 - 11	32
U1W	U1	8 1/2	2.963	6.000	8.250	3 1/4	7	1 1/4	5 5/8	60	1 3/4	3	5/8 - 11	45
U2W	U2	8 1/2	6.016	6.000	8.250	3 1/4	7	1 1/4	8 5/8	60	1 3/4	3	5/8 - 11	69
W1W	W1	12 1/2	2.963	8.500	12.250	4 9/16	10	1 1/4	6 3/8	22 1/2	1 3/4	4	3/4 - 10	130



For Bushings □ and □



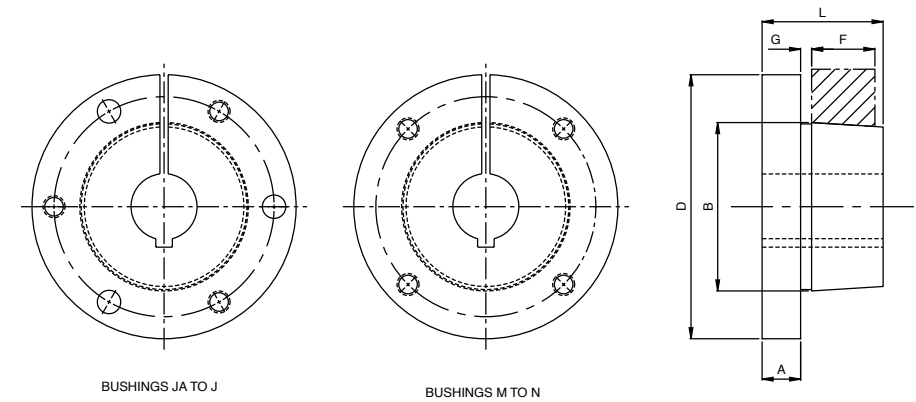
For Bushings P, B, Q, R, S, and U



For Bushing W

“QD” STYLE BUSHING

When compatibility really matters



ASME (ANSI) “QD” Style Bushings

All dimensions in inches unless otherwise stated.

Bushing	A	B	D	F	G	L	j Bolt Circle	Cap Screws Required	Standard Keyway	Shallow Keyway	Without Keyway	Weight (lbs.)
JA	5/16	1 3/8	2	9/16	1/8	1	1 21/32	(3) #10 x 1	1/2—1	1 1/16—1 3/16	1 1/4	0.8
SH	7/16	1 7/8	2 5/8	3/4	1/8	1 5/16	2 1/4	(3) 1/4 x 1 3/8	1/2—1 3/8	1 7/16—1 5/8	1 11/16	0.7
SDS	7/16	2 3/16	3 3/16	3/4	1/8	1 5/16	2 11/16	(3) 1/4 x 1 3/8	1/2—1 11/16	1 3/4—1 5/16	2	1.0
SD	7/16	2 3/16	3 3/16	1 1/4	1/8	1 13/16	2 11/16	(3) 1/4 x 1 7/8	1/2—1 11/16	1 3/4—1 5/16	2	1.0
SK	9/16	2 13/16	3 7/8	1 1/4	7/32	1 15/16	3 5/16	(3) 5/16 x 2	1/2—2 1/8	2 3/16—2 1/2	2 9/16—2 5/8	2.1
SF	5/8	3 1/8	4 5/8	1 1/4	7/32	2 1/16	3 7/8	(3) 3/8 x 2	1/2—2 5/16	2 3/8—2 13/16	2 13/16—2 15/16	3.1
E	7/8	3 53/64	6	1 5/8	1/4	2 3/4	5	(3) 1/2 x 2 3/4	7/8—2 7/8	2 15/16—3 1/2	—	2.1
F	1	4 7/16	6 5/8	2 1/2	1 1/32	3 3/4	5 5/8	(3) 9/16 x 3 5/8	1—3 1/4	3 3/16—3 15/16	4	3.1
J	1 1/8	5 5/64	7 1/4	3 3/16	3/8	4 5/8	6 1/4	(3) 5/8 x 4 1/2	1 1/2—3 7/8	3 15/16—4 1/2	—	16.8
M	1 1/4	6 1/2	9	5 3/16	1 3/32	6 3/4	7 7/8	(4) 3/4 x 6 3/4	2—4 3/4	4 7/8—5 1/2	—	56.0
N	1 1/2	7	10	6 1/4	9/16	8 1/8	8 1/2	(4) 7/8 x 8	2 7/16—5 1/8	5 3/16—5 1/2	—	68.0

All bushings can be supplied in steel, stainless steel and other materials. Consult Tsubaki for more details.
j Available Upon Request

Metric “QD” Style Bushings

All dimensions in inches unless otherwise stated.

Bore Range	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90	95	100
Keyway (mm)	8x3.3	8x3.3	8x3.3	8x3.3	10x3.3	10x3.3	10x3.3	12x3.3	12x3.3	14x3.3	14x3.3	14x3.3	16x4.3	18x4.4	18x4.4	20x4.9	20x4.9	22x5.4	22x5.4	25x5.4	25x5.4	28x6.4
Bushing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SDS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
F	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
J	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note - X denotes that the QD Bushing is also available with metric bore size keyway.
All metric bores are supplied with imperial threads.
All bushings can be supplied in steel, stainless steel and other materials. Consult Tsubaki for more details.

“XT” STYLE BUSHINGS

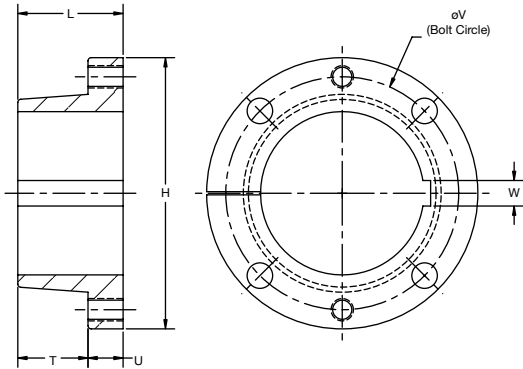
“XT” style bushings have been designed specifically for conveyor pulley applications. They offer improved holding power and ease of installation and removal compared to other bushing types. “XT” style bushings are available for all the major types and sizes of conveyor pulleys.

All dimensions in inches unless otherwise stated.

Bushing Number	Dimensions						Bore Range	Cap Screws		Approximate Weight (lbs.)	Wrench Torque (in. lbs.)
	L	U	T	H	V	W		Number	Size		
XTB15	1 1/8	3/8	3/4	2 7/8	2 7/16	3/16 1/4 3/8	5/8, 3/4, 7/8 1, 1 1/8, 1 3/16, 1 1/4 1 7/16, 1 1/2	4	1/4 x 1	0.7	95
XTB20	1 13/32	15/32	15/16	3 3/4	3 3/16	3/16 1/4 3/8 1/2	3/4 1, 1 3/16, 1 1/4 1 7/16, 1 1/2, 1 11/16 1 15/16, 2	4	5/16 x 1 1/4	1.5	200
XTB25	1 7/8	5/8	1 1/4	4 7/16	3 3/4	1/4 3/8 1/2 5/8	1, 1 3/16, 1 1/4 1 7/16, 1 1/2, 1 11/16 1 15/16, 2, 2 3/16 2 7/16	4	3/8 x 1 3/4	2.6	350
XTB30	2 1/16	11/16	1 3/8	5 5/16	4 9/16	3/8 1/2 5/8 3/4	1 7/16, 1 1/2 1 15/16, 2 3/16 2 7/16, 2 11/16 2 15/16	4	7/16 x 1 1/2	4.2	550
XTB35	2 15/32	25/32	1 11/16	6 5/16	5 7/16	1/2 5/8 3/4 7/8	1 15/16, 2 3/16 2 7/16, 2 11/16 2 15/16 3 7/16	4	1/2 x 1 3/4	7.4	840
XTB40	2 13/16	7/8	1 15/16	7 1/8	6 1/8	5/8 3/4 7/8 1	2 7/16 2 15/16 3 7/16 3 15/16	4	9/16 x 2	10.5	1,200
XTB45	3 5/16	15/16	2 3/8	8	6 7/8	7/8 1 1	3 7/16 3 15/16 4 7/16	4	5/8 x 2 1/4	14.8	1,680
XTB50	3 3/4	1	2 3/4	10 1/8	8 5/16	1 1 1 1/4	3 15/16, 4 7/16 4 15/16	4	3/4 x 2 1/2	27.8	3,000
XTB60	4 1/8	1 1/8	3	11 15/16	9 7/8	1 1/4 1 1/2	5 7/16, 5 1/2 5 15/16, 6	4	7/8 x 2 1/2	42.8	4,800
XTB70	4 11/16	1 5/16	3 3/8	13 15/16	11 9/16	1 1/2 1 3/4	6 7/16, 6 1/2 6 15/16, 7	4	1 x 3	66.3	7,200
XTB80	5 1/8	1 3/8	3 3/4	15 5/8	12 7/8	1 3/4 2	7 1/2 7 15/16, 8	4	1 1/8 x 3 1/2	85.7	9,000
XTB100	6 3/16	1 9/16	4 5/8	17 15/16	15 9/16	2 2 1/2	8 1/2, 9 9 7/16, 9 1/2, 10	6	1 1/8 x 3 1/2	146.0	9,000
XTB120	7 1/16	1 3/4	5 15/16	20 5/8	18 3/16	2 1/2 3	10 1/2, 11 11 1/2, 12	8	1 1/8 x 3 1/2	216.0	9,000

Features:

- Self seating
- Reduced end disc pre-stressing
- Minimal axial shaft movement
- Equally spaced bolts for uniform draw-up
- Capscrew torque-storing capacity is maximized by the flange
- Full length engagement with the hub
- Full size keys in maximum bushing bore sizes 50 and larger



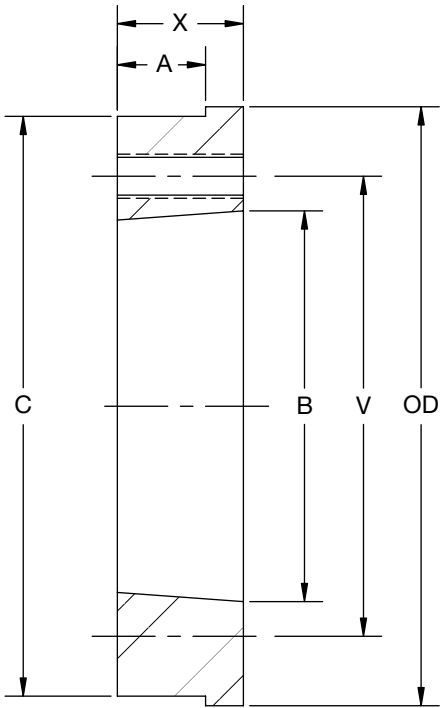
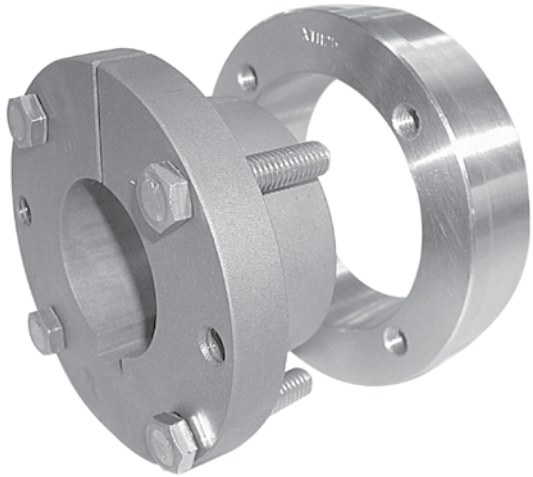
“XT” STYLE WELD-ON HUBS

When compatibility really matters

Tsubaki offers a complete line of “XT” style weld-on hubs for insertion and welding. Special dimensional hubs are available per your specifications on a Made-to-Order basis. All Tsubaki hubs are made from steel bar stock (not powdered or sintered metal). The “XT” style weld-on hubs listed below include appropriate tapered bores and mounting holes.

All dimensions in inches unless otherwise stated.

Hub Number	Bushing Used	O.D.	A	Dimensions			V	X	Tapped Holes		Weight (lbs.)
				B	C				No.	Size	
XTH15	XTB15	3.190	7/16	2.000	2.875		27/16	5/8	4	1/4 - 20UNC	0.7
XTH20	XTB20	4.065	9/16	2.688	3.813		33/16	13/16	4	5/16 - 18UNC	1.5
XTH25	XTB25	4.690	13/16	3.188	4.375		33/4	11/8	4	3/8 - 16UNC	2.6
XTH30	XTB30	5.940	7/8	3.875	5.750		49/16	11/4	4	7/16 - 14UNC	4.1
XTH35	XTB35	6.565	11/16	4.688	6.345		57/16	11/2	4	1/2 - 13UNC	6.6
XTH40	XTB40	7.562	11/4	5.313	7.250		61/8	13/4	4	9/16 - 12UNC	11
XTH45	XTB45	8.315	11/2	5.938	8.000		67/8	21/8	4	5/8 - 11UNC	15
XTH50	XTB50	9.940	13/4	7.250	9.563		85/16	21/2	4	3/4 - 10UNC	25
XTH60	XTB60	11.690	115/16	8.625	11.250		97/8	23/4	4	7/8 - 9UNC	36
XTH70	XTB70	13.627	23/16	10.000	13.188		119/16	31/8	4	1 - 8UNC	58
XTH80	XTB80	14.940	27/16	11.125	14.625		127/8	37/16	4	1 1/8 - 7UNC	76
XTH100	XTB100	17.940	3	13.688	17.500		159/16	41/8	6	1 1/8 - 7UNC	122
XTH120	XTB120	20.940	31/2	16.188	20.500		1813/16	413/16	8	1 1/8 - 7UNC	189



Features:

- Self seating
- Reduced end disc pre-stressing
- Minimal axial shaft movement
- Equally spaced bolts for uniform draw-up
- Capscrew torque-storing capacity is maximized by the flange
- Full length engagement with the hub
- Full size keys in maximum bushing bore sizes 50 and larger

Tsubaki Power-lock Features and Benefits:

- 1. Well-engineered, adjustable and affordable device that solves engineering and maintenance difficulties associated with other connection alternatives.
- 2. Shaft-to-hub friction connection that relies on concentric surface pressure to affix gears, sprockets and other drive components to a motor-driven shaft, thus allowing easy attachment of shaft to hub without the time and money spent on machining or extra assembly labour.

- 3. Eliminates problems with keyway connections and limitations for QD and tapered bushings.
- 4. Frictional, keyless system that enables transmission of high-torque and axial loads, and accomodates reversing, dynamic or shock loading.
- 5. Tsubaki Power-Locks can be used in such common applications as the connection of timing pulleys, sheaves, conveyor pulleys, indexing applications, sprockets, gears, cams, levers, motors and hydraulics, clutches and brakes and flange couplings.

Available in both Inch and Metric sizes in a variety of styles.



AS Inch and Metric Series Power-Lock

Multi-purpose locking devices available in stainless steel and electroless nickel-plated finish, in addition to standard models.
Bore range: 0.75" to 12" (19mm to 300mm)
Also available in larger sizes. Please contact Tsubaki.



AD Metric Series Power-Lock

Capable of transmitting 1.5 to 3 times the AS Series rated torque capacity. Suitable for applications requiring very high torque.
Bore range: 0.75" to 12" (19mm to 300mm)



KE Inch Series Power-Lock

Suitable for small shafts with a wide range of tolerances (m6, k6, js6, h6~h10).
Available in stainless steel and electroless nickel-plated KP models.
Bore range: 0.1875" to 4" (5mm to 100mm)



AE Metric Series Power-Lock

Simply constructed units with only an inner and an outer ring with a few locking bolts.
Bore range: 19mm to 150mm



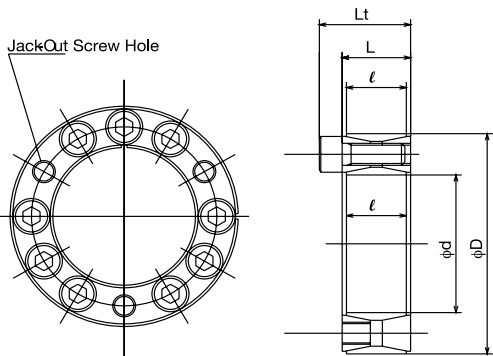
EL Metric Series Power-Lock

Although these shaft-hub locking devices cannot connect independently, they require minimum installation space and offer compact design configurations.
Bore range: 10mm to 150mm

AS Inch Series Power-Lock

Specification Table

d = inside diameter of Power-Lock and outside diameter of the shaft.
T₁ = machining tolerances for shaft.
D = outer diameter of Power-Lock and hub counter bore inside diameter.
T₂ = machining tolerances for hub counter bore (D).
ℓ, L, Lt = width dimensions after tightening of the screws.
F = maximum transmissible axial force.
M_t = maximum transmissible torque.
pH = contact pressure between Power-Lock and hub bore.
pS = contact pressure between Power-Lock and shaft.
M_A = required tightening torque per locking screw.
D_N = Minimum hub outside diameter for single Power-Lock installation (K₃=0.6) and is based on Y.P. 32,000 psi hub material.
For other hub materials, calculate the hub o.d. per the Selection Guide.



All dimensions in inches unless otherwise stated.

Model Number	Power Lock Dimensions							Max. F (lbf)	Max. M _t (ft-lb)	Pressures		Locking Screws			Minimum Hub Dia. D _N
	d	T ₁	D	T ₂	ℓ	L	Lt			pH (psi)	pS (psi)	Qty.	Size (mm)	M _A (ft-lb)	
PL 3/4	0.750		1.850		0.709	0.787	1.024	5,940	188	12,370	30,290	6	M6 x 18	12	2,345
PL 7/8	0.875	+0	1.850	-0	0.709	0.787	1.024	5,940	217	12,370	26,020	6	M6 x 18	12	2,345
PL1	1.000	-0.0013	1.969	+0.0013	0.709	0.787	1.024	7,480	318	14,650	29,010	8	M6 x 18	12	2,615
PL1 1/8	1.125		2.165		0.709	0.787	1.024	7,480	354	13,370	25,450	8	M6 x 18	12	2,790
PL1 3/16	1.188		2.159		0.709	0.819	1.055	7,480	376	13,370	24,320	8	M6 x 18	12	2,790
PL1 1/4	1.250		2.362		0.709	0.787	1.024	9,460	499	15,360	29,010	10	M6 x 18	12	3,180
PL1 3/8	1.375		2.365		0.709	0.773	1.009	9,460	550	15,360	26,310	10	M6 x 18	12	3,185
PL1 7/16	1.438		2.559		0.709	0.787	1.024	10,560	637	15,500	27,730	11	M6 x 18	12	3,455
PL1 1/2	1.500	-0.0015	2.559	+0.0015	0.709	0.787	1.024	10,560	658	15,500	26,590	11	M6 x 18	12	3,455
PL1 5/8	1.625		2.953		0.827	0.945	1.260	15,840	1,085	17,490	31,570	9	M8 x 22	30	4,155
PL1 11/16	1.688		2.953		0.827	0.945	1.260	15,840	1,122	17,490	30,480	9	M8 x 22	30	4,155
PL1 3/4	1.750		2.953		0.827	0.945	1.260	15,840	1,164	17,490	29,940	9	M8 x 22	30	4,155
PL1 7/8	1.875		3.150		0.827	0.945	1.260	15,840	1,244	16,350	27,440	9	M8 x 22	30	4,325
PL1 15/16	1.938		3.150		0.827	0.945	1.260	15,840	1,287	16,350	26,590	9	M8 x 22	30	4,325
PL2	2.000		3.346		0.827	0.945	1.260	19,360	1,627	18,910	31,570	11	M8 x 22	30	4,850
PL2 1/8	2.125		3.346		0.827	0.945	1.260	19,360	1,729	18,910	29,360	11	M8 x 22	30	4,850
PL2 3/16	2.188		3.543		0.827	0.945	1.260	19,360	1,779	17,780	28,870	11	M8 x 22	30	5,015
PL2 1/4	2.250		3.543		0.827	0.945	1.260	19,360	1,827	17,780	28,070	11	M8 x 22	30	5,015
PL2 3/8	2.375		3.531		0.827	1.008	1.323	19,360	1,931	17,780	26,590	11	M8 x 22	30	4,995
PL2 7/16	2.438	+0	3.740	-0	0.827	0.945	1.260	21,120	2,170	18,340	28,010	12	M8 x 22	30	5,355
PL2 1/2	2.500	-0.0018	3.740	+0.0018	0.827	0.945	1.260	21,120	2,228	18,340	27,300	12	M8 x 22	30	5,355
PL2 9/16	2.563		3.737		0.827	0.962	1.277	21,120	2,278	18,340	26,730	12	M8 x 22	30	5,350
PL2 5/8	2.625		4.337		0.984	1.073	1.467	31,020	3,400	19,340	31,940	11	M10 x 25	60	6,345
PL2 11/16	2.688		4.337		0.984	1.073	1.467	31,020	3,480	19,340	31,200	11	M10 x 25	60	6,345
PL2 3/4	2.750		4.337		0.984	1.073	1.467	31,020	3,537	19,340	30,430	11	M10 x 25	60	6,345
PL2 7/8	2.875		4.528		0.984	1.102	1.496	31,020	3,732	18,490	29,150	11	M10 x 25	60	6,505
PL2 15/16	2.938		4.528		0.984	1.102	1.496	31,020	3,812	18,490	28,580	11	M10 x 25	60	6,505
PL3	3.000		4.724		0.984	1.102	1.496	31,020	3,855	17,780	28,010	11	M10 x 25	60	6,685
PL3 3/8	3.375		4.921		0.984	1.102	1.496	33,660	4,745	18,630	27,160	12	M10 x 25	60	7,090
PL3 7/16	3.438		5.118		0.984	1.102	1.496	33,660	4,846	17,920	26,730	12	M10 x 25	60	7,260
PL3 1/2	3.500	+0	5.118	-0	0.984	1.102	1.496	33,660	4,933	17,920	26,160	12	M10 x 25	60	7,260
PL3 3/4	3.750	-0.0021	5.305	+0.0021	0.984	1.151	1.544	36,520	5,729	18,770	26,590	13	M10 x 25	60	7,665
PL3 15/16	3.938		5.708		1.142	1.302	1.774	45,100	7,378	18,490	26,730	11	M12 x 30	105	8,200
PL4	4.000		5.843		1.142	1.299	1.772	45,100	7,522	18,060	26,310	11	M12 x 30	105	8,315
PL4 7/16	4.438		6.496		1.142	1.299	1.772	49,280	9,114	17,780	25,880	12	M12 x 30	105	9,190
PL4 1/2	4.500		6.496		1.142	1.299	1.772	49,280	9,258	17,780	25,600	12	M12 x 30	105	9,190
PL4 15/16	4.938		7.087		1.339	1.496	1.969	61,600	12,730	17,350	24,890	15	M12 x 35	105	9,935
PL5	5.000		7.087		1.339	1.496	1.969	61,600	12,870	17,350	24,600	15	M12 x 35	105	9,935
PL5 1/2	5.500	+0	7.492	-0	1.339	1.438	1.910	65,560	15,120	17,490	23,750	16	M12 x 35	105	10,535
PL6	6.000	-0.0025	8.268	+0.0025	1.399	1.496	1.969	77,880	19,530	18,770	25,580	19	M12 x 35	105	11,945
PL6 1/2	6.500		8.858		1.575	1.732	2.283	90,200	24,450	17,210	23,460	16	M14 x 40	167	12,380
PL7	7.000		9.252		1.575	1.732	2.283	95,700	27,990	17,490	23,180	17	M14 x 40	167	13,010
PL7 1/2	7.500		9.823		1.890	2.144	2.695	112,640	35,220	16,210	21,330	20	M14 x 45	167	13,445
PL7 7/8	7.875		10.235		1.890	2.052	2.603	118,360	38,910	16,350	21,190	21	M14 x 45	167	14,050
PL8	8.000	+0	10.504	-0	1.890	2.047	2.598	118,360	39,560	15,930	20,900	21	M14 x 45	167	14,295
PL8 1/2	8.500	-0.0028	11.220	+0.0028	2.008	2.205	2.835	141,020	50,050	16,640	22,040	18	M16 x 50	257	15,436
PL9	9.000		11.669		2.008	2.205	2.835	141,020	53,020	15,930	20,760	18	M16 x 50	257	15,880
PL9 1/2	9.500		12.154		2.008	2.205	2.835	156,640	62,200	17,210	21,900	20	M16 x 50	257	16,985
PL10	10.000		12.795		2.008	2.205	2.835	180,180	75,220	18,770	23,890	23	M16 x 50	257	18,485
PL10 1/2	10.500		13.319		2.008	2.205	2.835	180,180	78,840	18,060	22,750	23	M16 x 50	257	18,950
PL11	11.000	+0	14.000	-0	2.402	2.482	3.191	207,240	95,480	16,500	20,900	22	M18 x 60	351	19,277
PL11 13/16	11.813	-0.0032	14.762	-0.0032	2.402	2.606	3.314	224,400	111,400	17,060	21,330	24	M18 x 60	351	20,565

At Tsubaki, our commitment is to bring you the highest value in the industry today. Period.

And as a full line supplier of power transmission products, this commitment extends to our complete line of Shock Relay products as well.

Protect your equipment and investment with Tsubaki shock relays and external current transformers. Unexpected shock loads can damage chains, drives, gears, turbines – entire mechanical assemblies. That means high maintenance, costly repairs and expensive downtime.

Simply put, when the shock relay detects a problem, it acts like an electronic shear pin that shuts down the line – quickly, safely and securely. That means big savings in both time and money.

After the problem is corrected, the shock relay is reset at the touch of a button. No tear down is required. That means improved efficiency and reduced downtime.

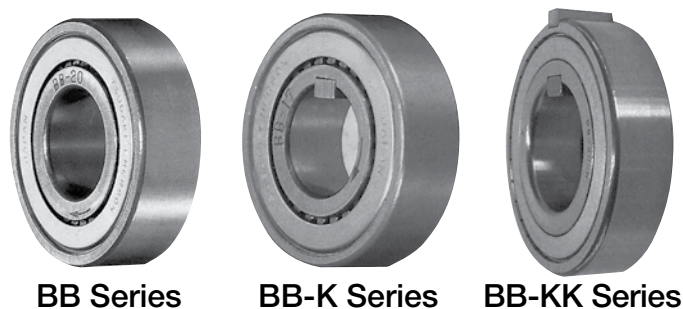


Standard Specification

		TSBSB05	TSBSB10	TSBSB30	TSBSB60	TSBSB100	TSBSB200	TSBSB300
Current Setting Range		0.5 to 6A	1 to 12A	3 to 30A	5 to 60A	10 to 100A	20 to 200A	30 to 300A
Time setting range	Start Time	0.2 to 10s						
	Shock Time	0.2 to 5s						
Current accuracy setting		+ - 10% (Full scale)						
Operation power		24 to 240V AC/DC + -10%, 50/60 Hz						
Maximum motor circuit voltage		600 V AC, 50/60 Hz						
Current detection		Two-phase CT system						
Display		Normal monitoring state: MON lamp is on Overcurrent monitoring state: OC lamp is on						
Output relay	Contact arrangement	1a1b						
	Contact rating	3 A, 250V AC, cos = 1						
	Recommended current	0.2A or less, 250V AC, cos = 0.4						
	Minimum applicable load	10 V DC, 10 mA						
	Operation selection	DIP switch selection set to SS: Excitation when normal, self-hold after trip; Selection set to SA: Excitation upon error, automatic reset after trip						
	Life	80,000 times at contract rating load						
Operating environment	Operating temperature	-20 to 60 degrees C						
	Storage temperature	-30 to 70 degrees C						
	Humidity	45 to 85% RH with no condensation						
	Altitude	2,000 m or less						
	Atmosphere	No dust or corrosive gas Pollution degree 3 or below when installed in control box						
Insulation resistance	Between circuit and housing	10M or more (500 V DC Megger)						
	Between circuit and housing	2000 V AC, 60 Hz, for 1 minute						
		1000 V AC, 60Hz, for 1 minute						
Dielectric voltage	Between circuits	2000 V AC, 60 Hz, for 1 minute						
Protection construction		IP20						
Material	Housing	Upper housing: PA6; Lower housing: PA66						
	Terminal cover	PA6						
Power consumption		2W or less						
Mounting		35-mm DIN rail or mounting plate						
Estimated mass	Main unit (external CT only)	0.2 kg (0.5 kg)						

BB SERIES CAM CLUTCH

BB Series Cam Clutches are a combination of a 62 Series ball bearing and a cam style clutch. These units are designed for press fit applications and are available in five variations, combinations of metal shield or dust protective sealed type and with or without keyways on the inner and/or outer race to allow design and application flexibility. BB Series units come grease lubricated but metal shielded style can be adapted for oil bath lubrication.



Example How to Order Code:
BB Series Cam Clutch Base Unit

BB		15			
Series		Size (Bore I.D.)		Construction	
BB: Ideal for general applications		15		Blank: Metal shield on one side, retainer on other side	
		17			
		20			
		25			
		30			
		35			
		40			

Example How to Order Code:
BB Series Cam Clutch with Key & Keyway

BB	15	KK
Series	Size (Bore I.D.)	Keyway
BB: Ideal for general applications	15	K: Metal shield on one side, retainer on other side. Keyway on inside diameter of Cam Clutch. Includes key.
	17	
	20	
	25	KK: Metal shield on one side, retainer on other side. Keyway on inside and outside diameter of Cam Clutch. Includes both keys.
	30	
	35	
	40	

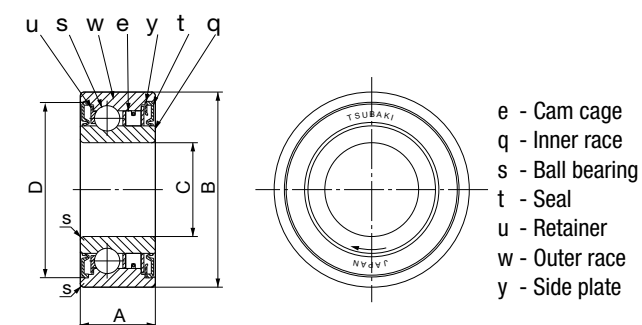
Specifications

Bearing Series	Inside Dia.	Torque Capacity	
		lb.ft.	(Nm)
6202	15 mm	21	(29)
6203	17 mm	32	(43)
6204	20 mm	45	(61)
6205	25 mm	58	(78)
6206	30 mm	103	(140)
6207	35 mm	128	(173)
6208	40 mm	192	(260)

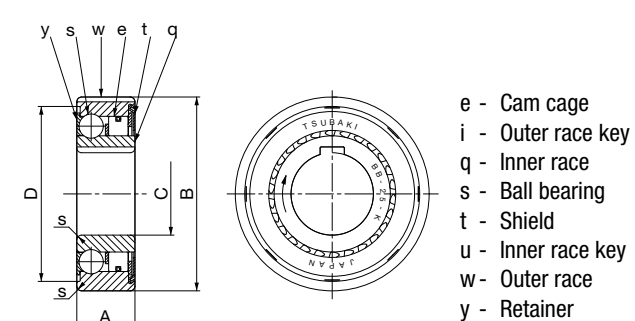
Key Specifications

Inner Race b x h x length	Outer Race b' x h' x length
5 x 3 x 11	2 x 2 x 11
5 x 3 x 12	2 x 2 x 12
6 x 4 x 14	3 x 3 x 14
8 x 5 x 15	6 x 4 x 15
8 x 5 x 16	6 x 4 x 16
10 x 6 x 17	8 x 5 x 17
12 x 8 x 22	10 x 6 x 22

BB-GD



BB-KK



Additional information including shaft and bore tolerances are found in the Engineering section starting on page 108.

Dimensions and Capacities

Model	Torque Capacity lb.ft. (Nm)	Max Overrunning		Drag Torque	A	B in. (mm)	C in. (mm)	D	r in. (mm)	Bearing Loads		Weight
		Inner Race r/min	Outer Race r/min	BB BB-K BB-KK lb.ft. (Nm)	BB BB-K BB-KK in. (mm)			BB BB-K BB-KK in. (mm)		Dynamic Cr lb. (N)	Static Cor lb. (N)	BB BB-K BB-KK lb. (g)
BB15	21	3600	2000	0.007	0.433	1.378	0.591	1.283	0.024	1338	726	0.1
	(29)			(0.010)	(11)	(35)	(15)	(32.6)	(0.6)	(5950)	(3230)	(50)
BB17	32	3500	1900	0.007	0.472	1.575	0.669	1.421	0.024	1574	832	0.2
	(43)			(0.010)	(12)	(40)	(17)	(36.1)	(0.6)	(7000)	(3700)	(80)
BB20	45	3000	1600	0.010	0.551	1.850	0.787	1.642	0.039	1911	1102	0.3
	(61)			(0.014)	(14)	(47)	(20)	(41.7)	(1)	(8500)	(4900)	(120)
BB25	58	2500	1400	0.013	0.591	2.047	0.984	1.827	0.039	2405	1416	0.3
	(78)			(0.017)	(15)	(52)	(25)	(46.4)	(1)	(10700)	(6300)	(150)
BB30	103	2000	1100	0.022	0.630	2.441	1.181	2.1653	0.039	2675	1776	0.5
	(140)			(0.030)	(16)	(62)	(30)	(55)	(1)	(11900)	(7900)	(230)
BB35	128	1800	1000	0.025	0.669	2.835	1.378	2.520	0.043	3035	2181	0.7
	(173)			(0.034)	(17)	(72)	(35)	(64)	(1.1)	(13500)	(9700)	(320)
BB40	192	1800	900	0.030	0.866	3.150	1.575	2.795	0.043	3260	2630	0.9
	(260)			(0.040)	(22)	(80)	(40)	(71)	(1.1)	(14500)	(11700)	(400)

BB-2GD SERIES CAM CLUTCH

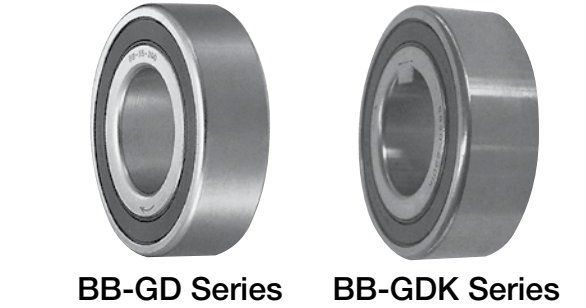
BB-2GD Series Cam Clutches build upon the standard BB Series with the addition of complete rubber seals on both sides. The addition of rubber seals makes the BB-GD Series slightly wider (0.197", 5 mm) than the equivalent 62 Series ball bearing.

BB15GD

Series	Size (Bore I.D.)	Construction
BB: Ideal for general applications	15	GD: Rubber seals on both sides
	17	
	20	
	25	
	30	
	35	
	40	

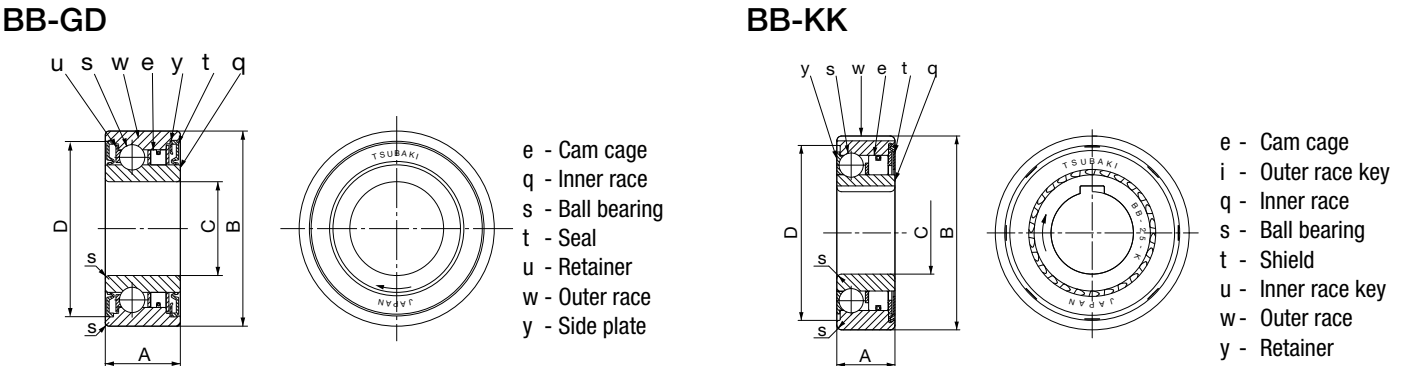
BB15GDK

Series	Size (Bore I.D.)	Construction	Keyway
BB: Ideal for general applications	15	GD: Rubber seals on both sides	K: Keyway on inside diameter of Cam Clutch and includes key
	17		
	20		
	25		
	30		
	35		
	40		



Bearing Series	Inside Dia.	Torque Capacity	
		lb.ft.	(Nm)
6202	15 mm	21	(29)
6203	17 mm	32	(43)
6204	20 mm	45	(61)
6205	25 mm	58	(78)
6206	30 mm	103	(140)
6207	35 mm	128	(173)
6208	40 mm	192	(260)

Inner Race b x h x length	Outer Race b' x h' x length
5 x 3 x 11	2 x 2 x 11
5 x 3 x 12	2 x 2 x 12
6 x 4 x 14	3 x 3 x 14
8 x 5 x 15	6 x 4 x 15
8 x 5 x 16	6 x 4 x 16
10 x 6 x 17	8 x 5 x 17
12 x 8 x 22	10 x 6 x 22



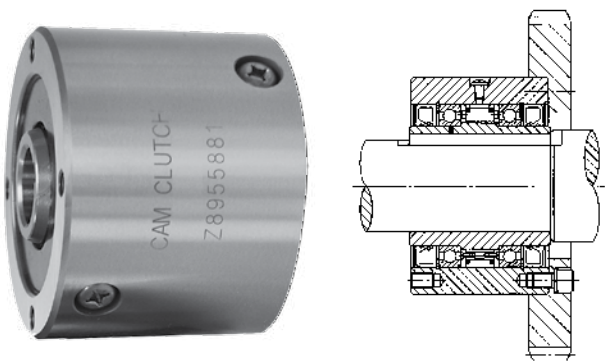
Additional information including shaft and bore tolerances are found in the Engineering section starting on page 108.

Dimensions and Capacities

Model	Torque Capacity lb.ft. (Nm)	Max Overrunning		Drag Torque BB-GD BB-GDK lb.ft. (Nm)	A BB-GD BB-GDK in. (mm)	B in. (mm)	C in. (mm)	D BB-GD BB-GDK in. (mm)	r in. (mm)	Bearing Loads		Weight (n) BB-GD BB-GDK lb. (g)
		Inner Race r/min	Outer Race r/min							Dynamic lb. (N)	Static lb. (N)	
BB15	21	3600	2000	0.030	0.630	1.378	0.591	1.278	0.024	1338	726	0.2
	(29)			(0.04)	(16)	(35)	(15)	(32.45)	(0.6)	(5950)	(3230)	(70)
BB17	32	3500	1900	0.037	0.669	1.575	0.669	1.435	0.024	1574	832	0.2
	(43)			(0.05)	(17)	(40)	(17)	(36.45)	(0.6)	(7000)	(3700)	(100)
BB20	45	3000	1600	0.041	0.748	1.850	0.787	1.667	0.039	1911	1102	0.3
	(61)			(0.055)	(19)	(47)	(20)	(42.35)	(1.0)	(8500)	(4900)	(150)
BB25	58	2500	1400	0.041	0.787	2.047	0.984	1.852	0.039	2405	1416	0.4
	(78)			(0.055)	(20)	(52)	(25)	(47.05)	(1.0)	(10700)	(6300)	(200)
BB30	103	2000	1100	0.043	0.827	2.441	1.181	2.189	0.039	2675	1776	0.6
	(140)			(0.058)	(21)	(62)	(30)	(55.6)	(1.0)	(11900)	(7900)	(280)
BB35	128	1800	1000	0.044	0.866	2.835	1.378	2.543	0.043	3035	2181	0.9
	(173)			(0.06)	(22)	(72)	(35)	(64.6)	(1.1)	(13500)	(9700)	(410)
BB40	192	1800	900	0.059	1.063	3.150	1.575	2.819	0.043	3260	2630	1.3
	(260)			(0.08)	(27)	(80)	(40)	(71.6)	(1.1)	(14500)	(11700)	(600)

MGUS SERIES CAM CLUTCH

MGUS Series Cam Clutch products are designed to satisfy inner or outer race overrunning/general application requirements. Depending on application requirements, the MGUS Series can be used in over-running, indexing, or backstopping applications. This series is offered in both metric and inch based inner race configurations. MGUS Series units can easily be mated to pulleys, gears, or sprockets. MGUS Series ships pre-lubricated with oil.



Example How To Order Code:
MGUS Series Cam Clutch

MGUS	500	-	1B
Series	Frame Size		Bore Symbol
MGUS: For backstop and overrunning applications	300	-	H
			15
			J
			L
	400	-	H
			J
			18
			L
	500	-	P
			20
			P
			1B

Available Bore Range

MGUS Series Cam Clutches are stocked in many bore sizes. Requested bore size and keyway combination are possible on a made-to-order basis. Chart below provides the available range of bore sizes per a given model.

Model	Range Inner Diameter inch (mm)	
MGUS300	0.500 to 0.750 inch	(12.70 to 19.05 mm)
MGUS400	0.437 to 0.866 inch	(11.10 to 22.23 mm)
MGUS500	0.750 to 1.312 inch	(19.05 to 33.32 mm)
MGUS600	0.937 to 2.000 inch	(23.80 to 50.80 mm)
MGUS700	1.875 to 2.938 inch	(47.62 to 74.61 mm)
MGUS750	2.250 to 3.437 inch	(57.15 to 87.30 mm)
MGUS800	2.625 to 4.438 inch	(66.68 to 112.71 mm)
MGUS900	3.625 to 5.438 inch	(92.08 to 138.11 mm)
MGUS1000	4.938 to 7.000 inch	(125.41 to 177.80 mm)

Specifications

The bore sizes listed below are standards. Special bore sizes are available upon request.

Bore Size		Bore Keyseat	Torque Capacity	
in.	(mm)		lb.ft	(Nm)
0.500	(12.70)	1/8 x 1/16"	280	(380)
0.590	(15)	5 X 2.3 mm		
0.625	(15.88)	3/16 x 3/32"		
0.750	(19.05)	3/16 x 3/32"	398	(539)
0.500	(12.70)	1/8 x 1/16"		
0.625	(15.88)	3/16 x 3/32"		
0.708	(18)	6 x 2.8 mm		
0.750	(19.05)	3/16 x 3/32"		
0.875	(22.23)	3/16 x 1/16"	1195	(1620)
0.787	(20)	6 x 2.8 mm		
0.875	(22.23)	3/16 x 3/32"		
1.000	(25.40)	1/4 x 1/8"		
1.125	(28.58)	1/4 x 1/8"		

Example How To Order Code:
MIUS Series Cam Clutch

MGUS	600	-	1F
Series	Frame Size		Bore Symbol
MGUS: For backstop and over-running applications	500	-	30
			1D
			1E
	600	-	1D
			1F
			1H
			40
			1J
			45
			1L
			1R
			50
			2
	700	-	1R
			50
			2
			55
			2D
			60
			2G
			2H
			65
			2L
			70
			2R
	750	-	2G
			2H
			65
			2L
			70
			2R
			75
			3
			80
			3D
	800	-	3
			80
			3D
			85

Specifications

The bore sizes listed below are standards. Special bore sizes are available upon request.

Bore Size		Bore Keyseat	Torque Capacity	
in.	(mm)		lb.ft	(Nm)
1.181	(30)	10 x 3.3 mm	1195	(1620)
1.250	(31.75)	1/4 x 1/8"		
1.312	(33.34)	1/4 x 3/32"		
1.250	(31.75)	1/4 x 1/8"	2316	(3140)
1.375	(34.93)	3/8 x 3/16"		
1.500	(38.10)	3/8 x 3/16"		
1.574	(40)	12 x 3.3 mm		
1.625	(41.28)	3/8 x 3/16"		
1.771	(45)	14 x 3.8 mm		
1.750	(44.45)	3/8 x 3/16"		
1.938	(49.22)	3/8 x 3/16"		
1.968	(50)	14 x 3.8 mm	5163	(7000)
2.000	(50.80)	3/8 X 1/8"		
1.938	(30.32)	1/2 x 1/4"		
1.969	(50)	14 x 3.8 mm		
2.000	(50.8)	1/2 x 1/4"		
2.165	(55)	16 x 4.3 mm		
2.250	(57.15)	1/2 x 1/4"		
2.362	(60)	18 x 4.4 mm		
2.438	(61.92)	5/8 X 5/16"		
2.500	(63.50)	5/8 X 5/16"		
2.559	(65)	18 x 4.4 mm	7007	(9500)
2.750	(69.85)	5/8 X 7/32"		
2.755	(70)	20 x 4.9 mm		
2.938	(74.62)	5/8 X 1/8"		
2.438	(61.92)	5/8 X 5/16"		
2.500	(63.50)	5/8 X 5/16"		
2.559	(65)	18 x 4.4 mm		
2.750	(69.85)	5/8 X 5/16"		
2.755	(70)	20 x 4.9 mm		
2.938	(74.62)	3/4 X 3/8"		
2.952	(75)	20 x 4.9 mm	13276	(18000)
3.000	(76.20)	3/4 X 3/8"		
3.149	(80)	22 x 5.4 mm		
3.250	(82.55)	3/4 X 1/4"		
3.000"	(76.20)	3/4 X 3/8"		
3.149	(80)	22 x 5.4 mm	13276	(18000)
3.250	(82.55)	3/4 X 3/8"		
3.346	(85)	22 x 5.4 mm		

MGUS SERIES CAM CLUTCH

Example How To Order Code:
MGUS Series Cam Clutch

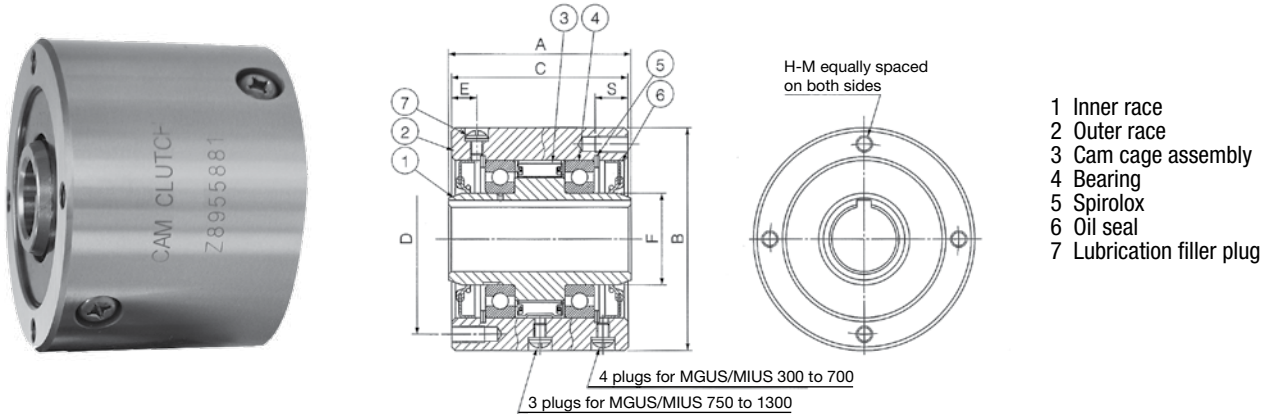
MGUS	800	-	3G
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Series	Frame Size		Bore Symbol
MGUS: For backstop and over-running applications	800	-	3G
			3H
			90
			3L
			100
			3R
			4
			4D
			110
			4G
	900	-	100
			4
			4D
			110
			4G
			4H
			120
			4L
			4R
			5
	1000	-	130
			5D
			135
			5G
			4R
			5
			130
			5D
			5G
			5H
			5L
			150
			5R
			6
			6D
			160
			6G
			6J
			6L
			6P
			175
			7

Specifications

The bore sizes listed below are standards.
Special bore sizes are available upon request.

Bore Size			Torque Capacity	
in.	(mm)	Bore Keyseat	lb.ft	(Nm)
3.438	(87.32)	7/8 X 7/16"	13276	(18000)
3.500	(88.90)	7/8 X 7/16"		
3.543	(90)	22 x 5.4 mm		
3.750	(95.25)	7/8 X 7/16"		
3.937	(100)	28 x 6.4 mm		
3.938	(100.01)	1 X 1/2"		
4.000"	(101.6)	1 X 1/2"		
4.250	(107.95)	1 X 3/8"		
4.330	(110)	28 x 6.4 mm		
4.438	(112.71)	1 X 1/4"		
3.937	(100)	28 x 6.4 mm	18070	(24500)
4.000	(101.6)	1 X 1/2"		
4.250	(107.95)	1 X 1/2"		
4.330	(110)	28 x 6.4 mm		
4.438	(112.71)	1 X 1/2"		
4.500	(114.30)	1 X 1/2"		
4.724	(120)	32 x 7.4 mm		
4.750	(120.65)	1 X 1/2"		
4.938	(125.41)	1 X 3/8"		
5.000	(127.00)	1 X 3/8"		
5.118	(300)	32 x 7.4 mm	27290	(37000)
5.250	(133.35)	1 X 1/4"		
5.314	(135)	32 x 7.4 mm		
5.438	(138.11)	1 X 1/4"		
4.938	(125.41)	1-1/4 X 5/8"		
5.000	(127.00)	1-1/4 X 5/8"		
5.118	(130)	36 x 8.4 mm		
5.250	(133.35)	1-1/4 X 5/8"		
5.438	(138.11)	1-1/4 X 5/8"		
5.500	(139.70)	1-1/4 X 5/8"		
5.750	(146.05)	1-1/4 X 7/16"		
5.906	(150)	36 x 8.4 mm		
5.938	(150.81)	1-1/4 X 7/16"		
6.000	(152.40)	1-1/4 X 5/8"		
6.250	(158.75)	1-1/2 X 1/2"		
6.299	(160)	38 x 10		
6.438	(163.51)	1-1/4 X 3/8"		
6.625	(168.28)	1-1/2 X 1/2"		
6.750	(171.45)	1-1/2 X 1/2"		
6.875	(174.63)	1-1/2 X 1/2"		
6.889	(175)	45 x 10.4 mm		
7.000	(177.80)	1-1/2 X 7/16"		



Additional information including shaft and bore tolerances are found in the Engineering section starting on page 108.

Dimensions and Capacities

Model	Max. Overrunning (RPM)		Drag Torque lb.ft. (Nm)	A in. (mm)	B in. (mm)	C in. (mm)	D PCD in. (mm)	E in. (mm)	F in. (mm)	S in. (mm)	H-M No. of Tapped Holes (Qt.) Thread	Oil Filler Plug Size × Pitch	Oil oz. (mℓ)	Weight lb. (kg)
	Inner Race	Outer Race												
MGUS300	2800	900	0.17	2.500	3.000/2.998	2.380	2.625	0.409	1.122	0.512	(4) 1/4-28	M6 x P1.0	0.9	4.0
			(0.23)	(63.5)	(76.2/76.15)	(60.45)	(66.67)	(10.4)	(28.5)	(13)			(25)	(1.8)
MGUS400	2600	800	0.21	2.750	3.500/3.498	2.690	2.875	0.421	1.248	0.630	(4) 5/16-24	M6 x P1.0	1.0	6.0
			(0.29)	(69.85)	(88.90/88.85)	(68.33)	(73.03)	(10.7)	(31.7)	(16)			(30)	(2.7)
MGUS500	2400	800	0.38	3.500	4.250/4.248	3.375	3.625	0.484	1.748	0.630	(4) 5/16-24	M6 x P1.0	1.7	11.0
			(0.51)	(88.9)	(107.95/107.90)	(85.725)	(92.08)	(12.3)	(44.4)	(16)			(50)	(5)
MGUS600	2100	700	0.63	3.750	5.375/5.373	3.630	4.750	0.503	2.748	0.630	(6) 5/16-24	M6 x P1.0	2.7	19.0
			(0.85)	(95.25)	(136.53/136.48)	(92.20)	(120.65)	(12.8)	(69.8)	(16)			(80)	(8.6)
MGUS700	1500	500	1.25	5.000	7.125/7.123	4.880	6.250	0.780	3.996	0.787	(8) 3/8-24	M6 x P1.0	4.6	43.0
			(1.7)	(127)	(180.98/180.93)	(123.95)	(158.75)	(19.8)	(101.5)	(20)			(135)	(19.5)
MGUS750*	1800	600	2.53	6.000	8.750/8.748	5.880	7.000	2.940	4.330	0.984	(8) 1/2-20	M8 x P1.25	13.6	81.6
			(3.43)	(152.4)	(222.25/222.20)	(149.35)	(177.8)	(74.67)	(110)	(25)			(400)	(37)
MGUS800*	1300	475	3.98	6.000	10.000/9.998	5.880	8.940	2.940	5.512	0.984	(8) 1/2-20	M8 x P1.25	17.0	103
			(5.39)	(152.4)	(254.00/253.95)	(149.35)	(227.08)	(74.67)	(140)	(25)			(500)	(46.5)
MGUS900*	1200	400	4.99	6.380	12.000/11.997	6.250	9.750	3.125	6.693	1.260	(10) 5/8-18	M8 x P1.25	21.1	155
			(6.77)	(162.052)	(304.80/304.72)	(158.75)	(247.65)	(79.38)	(170)	(32)			(620)	(70.5)
MGUS1000*	1200	325	6.00	6.630	15.000/14.997	6.500	11.750	3.250	7.874	1.260	(12) 5/8-18	M8 x P1.25	28.9	239
			(8.14)	(168.402)	(381.00/380.92)	(165.10)	(298.45)	(82.55)	(200)	(32)			(850)	(108.5)

* When placing an order for MGUS Series Cam Clutch model MGUS750 and above, please inform Tsubaki of the overrunning speed you use.

MGUS-R SERIES CAM CLUTCH

In backstop applications where the Cam Clutch is used with continuous inner race and mid-speed overrunning, the MGUS Series Cam Clutch can be fitted with an oil reservoir creating the MGUS-R Series. The added capacity of the oil reservoir plus the integral cooling fins increases the time between service intervals, permitting the free flow of oil between the reservoir and the clutch. A clear sight gauge built into the reservoir allows real-time checking of the fluid level and the general condition of the lubrication oil.

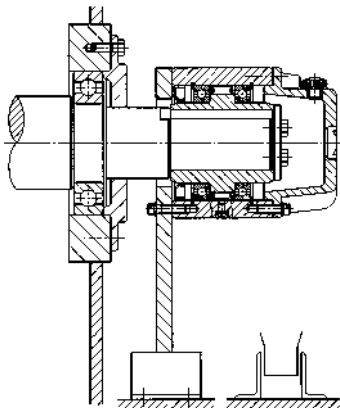
MGUS-R Series Cam Clutch ordering procedure:

Start with the standard MGUS Series model name as shown on the preceding pages and at the end of the model name, add the "-R" and left or right hand rotation as illustrated below. Only a partial example is shown below however, the "-R" reservoir can be added to all MGUS Cam Clutches in all available bore sizes.

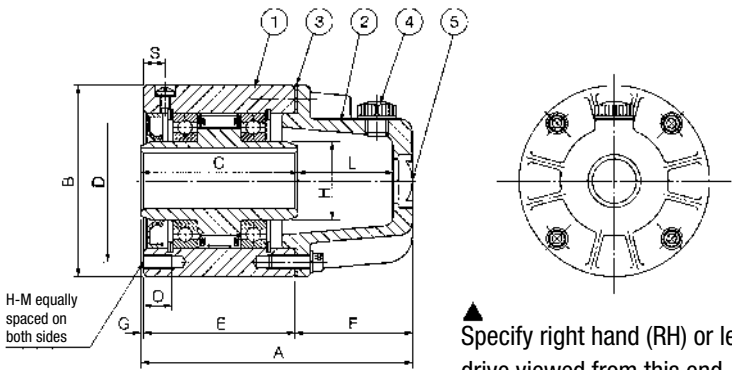
Example How To Order Code: MGUS Series Cam Clutch

MGUS	500	-	1B	R	-LH
Series	Frame Size		Bore Symbol	Reservoir	
MGUS: Indexing with inner and outer race overrunning	300	-	H	R: Denotes the addition of an oil reservoir to an MGUS Series Cam Clutch	-LH: Denotes left hand rotation
			15		
			J		
			19		
			L		
	400		H		
			J		
			18		
			L		
			P		
	500		20		-RH: Denotes right hand rotation
			22		
			P		
			1		
			1B		

Above is a partial listing of available sizes. Complete list is identical to MGUS Series.



Typical Installation



Additional information including shaft and bore tolerances are found in the Engineering section starting on 108.

Dimensions and Capacities

Model	Torque Capacity lb.ft. (Nm)	Drag Torque lb.ft. (Nm)	Max. Over- running (r/min) Inner Race	A in. (mm)	B in. (mm)	C in. (mm)	D PCD in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)	S in. (mm)	H-M No. of Tapped Holes (Qt.) Thread	Oil oz. (mℓ)	Weight lb. (kg)
MGUS300R	280 (380)	0.12 (0.16)	2800	4.546 (115.48)	3.000/2.998 (76.20/76.15)	2.500 (63.5)	2.625 (66.67)	2.380 (60.45)	2.106 (53.5)	0.060 (1.53)	1.122 (28.5)	0.512 (13)	4 x 0.25-28	0.850 (25)	4.4 (2)
	398 (539)	0.15 (0.20)		4.826 (122.59)	3.500/3.498 (88.90/88.85)	2.750 (69.85)	2.875 (73.03)	2.690 (68.33)	2.106 (53.5)	0.030 (0.76)	1.248 (31.7)	0.630 (16)		1.020 (30)	6.6 (3)
MGUS400R	1195 (1620)	0.27 (0.36)	2400	6.053 (153.88)	4.250/4.248 (107.95/107.90)	3.500 (88.9)	3.625 (92.08)	3.375 (85.725)	2.618 (66.5)	0.060 (1.53)	1.748 (44.4)	0.630 (16)	4 x 0.312-24	1.700 (50)	12.1 (5.5)
	2316 (3140)	0.44 (0.59)		6.505 (165.23)	5.375/5.373 (136.53/136.48)	3.750 (95.25)	4.750 (120.65)	3.630 (92.20)	2.815 (71.5)	0.060 (1.53)	2.748 (69.8)	0.630 (16)		2.720 (80)	20.9 (9.5)
MGUS500R	5163 (7000)	0.88 (1.19)	1500	8.149 (206.98)	7.125/7.123 (180.98/180.93)	5.000 (127)	6.250 (158.75)	4.880 (123.95)	3.209 (81.5)	0.060 (1.53)	3.996 (101.5)	0.787 (20)	6 x 0.312-24	4.590 (135)	46.3 (21)
	7007 (9500)	2.03 (2.75)		10.999 (279.38)	8.750/8.748 (222.25/222.20)	6.000 (152.4)	7.000 (177.8)	5.880 (149.35)	5.059 (128.5)	0.060 (1.53)	4.330 (110)	0.984 (25)		13.600 (400)	88.8 (40.3)
MGUS750R	13276 (18000)	3.19 (4.32)	1800	11.531 (292.88)	10.000/9.998 (254.00/253.95)	6.000 (152.4)	8.940 (227.08)	5.880 (149.35)	5.591 (142)	0.060 (1.53)	5.512 (140)	0.984 (25)	8 x 0.50-20	17.000 (500)	111.6 (50.6)
	18070 (24500)	3.98 (5.39)		12.299 (312.40)	12.000/11.997 (304.80/304.72)	6.380 (162.05)	9.750 (247.65)	6.250 (158.75)	5.984 (152)	0.065 (1.65)	6.693 (170)	1.260 (32)		21.080 (620)	171.1 (77.6)
MGUS900R	27290 (37000)	4.77 (6.47)	1200	12.746 (323.75)	15.000/14.997 (381.00/380.92)	6.630 (168.40)	11.750 (298.45)	6.500 (165.1)	6.181 (157)	0.065 (1.65)	7.874 (200)	1.260 (32)	12 X 0.625-18	28.900 (850)	257.1 (116.6)

BS-HS SERIES CAM CLUTCH

BS-HS Series Cam Clutch offers a higher strength/higher rpm option. Non-rollover cams are flanked by individual bearings on both sides. This series is identified by "HS" following the frame size number. Designed to provide inner race overrunning capability in one direction of operation, and engage the outer race when reverse rotation is experienced. Typically found on long incline conveyor systems, bucket elevators, and large pumping systems.

BS-HS Series Cam Clutch units are all manufactured on a made-to-order basis. When ordering, please specify bore size and keyway dimensions along with tolerances if available. Tsubaki includes the shaft key with your BS-HS Cam Clutch. If tolerances are not known, Tsubaki will produce per our standards. A complete Cam Clutch assembly typically includes the Cam Clutch, torque arm, shaft key, shaft end plate, and safety cover or oil reservoir. BS-HS Series Cam Clutches are pre-lubricated with grease prior to shipping.

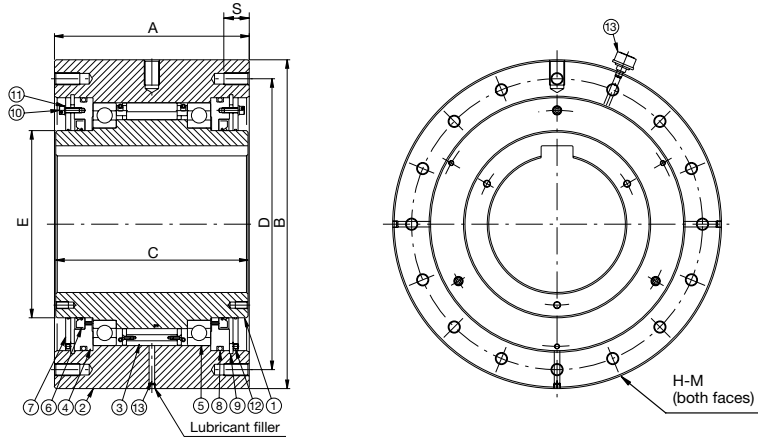
Example How To Order Code:
BS-HS Series Cam Clutch

BS	300	HS	-	10.4375"
Series	Frame Size	Descriptor	-	Available Bore Range
BS: Backstop type	160	HS: High speed/ High strength	-	3.937" to 6.250" (100 to 160 mm)
	200			3.937" to 7.875" (100 to 200 mm)
	220			5.937" to 8.625" (150 to 220 mm)
	250			6.875" to 9.750" (175 to 250 mm)
	270			7.875" to 10.625" (200 to 270 mm)
	300			9.000" to 11.750" (230 to 300 mm)
	350			9.875" to 13.725" (250 to 350 mm)
	425			12.750" to 16.625" (325 to 425 mm)
	450			13.750" to 17.625" (350 to 450 mm)
				When ordering, specify the required bore size, keyway dimensions, and special tolerance if needed.

Specifications

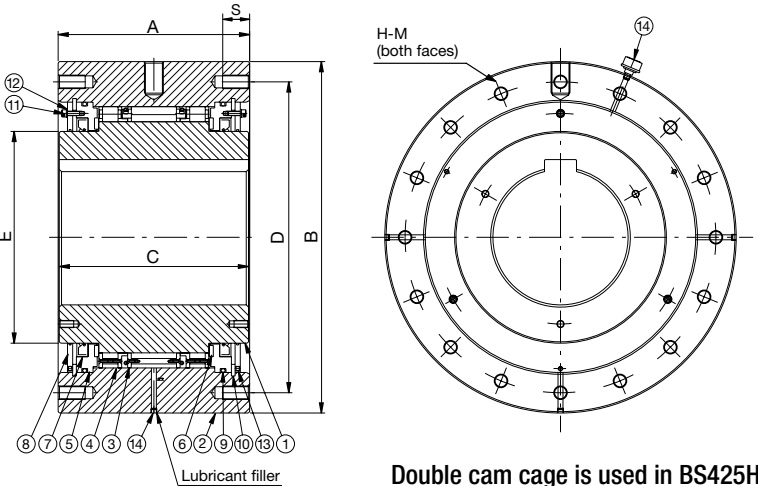
Torque Capacity		Overrunning Max. RPM
lb.ft.	(Nm)	
28912	(39200)	350
45507	(61700)	250
75231	(102000)	200
108421	(147000)	170
150462	(204000)	160
216843	(294000)	150
289124	(392000)	110
542107	(735000)	85
722809	(980000)	80

BS160HS~BS270HS



- 1 Inner race
- 2 Outer race
- 3 Cam cage
- 4 Seal supporter
- 5 Bearing
- 6 Oil seal
- 7 Grease fitting
- 8 O-ring
- 9 Snap ring
- 10 Socket bolt
- 11 Seal washer
- 12 Set screw
- 13 Air breather

BS300HS~BS350HS
BS425HS~BS450HS



- 1 Inner race
- 2 Outer race
- 3 Cam cage
- 4 Roller cage
- 5 Seal supporter
- 6 Thrust bearing
- 7 Oil seal
- 8 Grease fitting
- 9 O-ring
- 10 Snap ring
- 11 Socket bolt
- 12 Seal washer
- 13 Set screw
- 14 Air breather

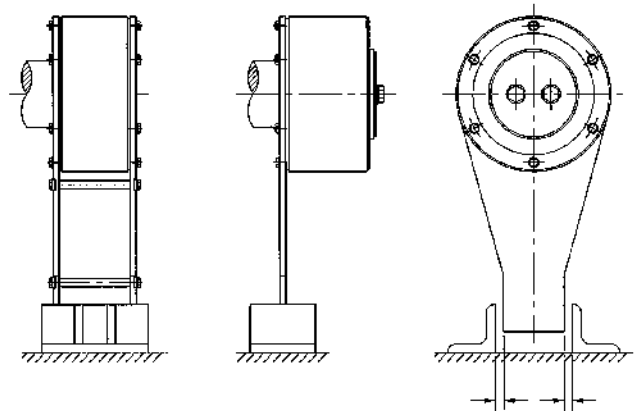
Double cam cage is used in BS425HS, BS450HS

Additional information including shaft and bore tolerances are found in the Engineering section starting on page 108.

Dimensions and Capacities

Model	Torque	Inner Race Max. Overrunning Speed (RPM)	Drag Torque	A	B	C	D	E	S	H-M Size x Pitch No. of Tapped Holes	Grease Filler Size	Grease Quantity		Weight*
	lb.ft. (Nm)			in. (mm)	in. (mm)	in. (mm)	PCD in. (mm)	in. (mm)	in. (mm)			lbs. (kg)	lb. (kg)	
BS160HS	28912 (39200)	350	25.3 (34.3)	7.1 (180)	14.2 (360)	6.9 (175)	12.402 (315)	8.7 (220)	1.6 (40)	M20 x P2.5 (10)	PT 1/4	0.5 (0.23)	264 (120)	
BS200HS	45507 (61700)	250	32.5 (44.1)	8.1 (205)	16.9 (430)	7.9 (200)	14.961 (380)	10.2 (260)	1.6 (40)	M22 x P2.5 (8)	PT 1/4	0.7 (0.31)	440 (200)	
BS220HS	75231 (102000)	200	54.2 (73.5)	13.0 (330)	19.7 (500)	12.8 (325)	16.535 (420)	11.4 (290)	1.6 (40)	M20 x P2.5 (16)	PT 1/4	2.9 (1.3)	858 (390)	
BS250HS	108421 (147000)	170	68.7 (93.1)	14.6 (370)	23.6 (600)	14.4 (365)	20.866 (530)	13.0 (330)	2.0 (50)	M24 x P3.0 (16)	PT 1/4	3.7 (1.7)	1672 (760)	
BS270HS	150462 (204000)	160	72.3 (98)	15.2 (385)	25.6 (650)	15.0 (380)	22.638 (575)	14.6 (370)	2.0 (50)	M24 x P3.0 (16)	PT 1/4	4.4 (2)	1870 (850)	
BS300HS	216843 (294000)	150	79.7 (108)	16.7 (425)	30.7 (780)	16.5 (420)	27.165 (690)	18.5 (470)	2.4 (60)	M30 x P3.5 (16)	PT 1/4	7.9 (3.6)	3080 (1400)	
BS350HS	289124 (392000)	110	116 (157)	17.3 (440)	36.6 (930)	18.9 (480)	32.087 (815)	21.1 (535)	2.8 (70)	M36 x P4.0 (16)	PT 1/4	9.0 (4.1)	5060 (2300)	
BS425HS	542107 (735000)	85	159 (216)	22.4 (570)	40.6 (1030)	22.8 (580)	37.008 (940)	25.0 (635)	2.8 (70)	M36 x P4.0 (18)	PT 1/4	15.2 (6.9)	7260 (3300)	
BS450HS	722809 (980000)	80	181 (245)	22.4 (570)	42.9 (1090)	23.6 (600)	38.976 (990)	25.4 (645)	3.1 (80)	M42 x P4.5 (18)	PT 1/4	15.8 (7.2)	8140 (3700)	

* Listed weight is for Cam Clutch with smallest bore. This is max. possible weight.



BS SERIES CAM CLUTCH

BS Series Cam Clutch products are designed to provide inner race overrunning capability in one direction of operation, and engage the outer race when reverse rotation is experienced. BS Series units are often found on incline conveyor systems, or pump systems that may experience reverse rotation due to excessive loading on the discharge side of the pump. BS Series Cam Clutches are a cam and roller design incorporating the low friction bearing into the cam cage.

A complete Cam Clutch assembly typically includes the Cam Clutch, torque arm, shaft key, shaft end plate, and safety cover or oil reservoir. The shaft key is included with the Cam Clutch but please select each additional item individually as needed. Grease lubrication is standard for BS30 through BS350 Cam Clutches. Size BS425 and BS450 use oil lubrication.

How To Order: For the BS Series Cam Clutch that is needed, please specify the series, frame size, and bore size. If the bore size needed is not specified or if different key dimensions are required, please contact Tsubaki. Made-to-order Cam Clutches are readily available.



Example How To Order Code: BS Series Cam Clutch

Series	Frame Size	-	Available Bore Range	Full Description
BS	30	-	1	BS30 Cam Clutch with 1.000" bore including 1/4" wide key

BS Series Cam Clutch Product Overview				
Series	Frame Size	-	Available Bore Range	
BS: Backstop Cam Clutch	30	-	0.750" to 1.181"	(20 to 30 mm)
	50		1.125" to 2.000"	(28.58 to 50.8 mm)
	65		1.500" to 2.559"	(38.1 to 65 mm)
	75		1.938" to 2.953"	(49.2 to 75 mm)
	85		2.362" to 3.346"	(60 to 85 mm)
	95		2.250" to 3.740"	(57.15 to 95 mm)
	110		2.437" to 4.331"	(61.9 to 110 mm)
	135		2.937" to 5.315"	(74.6 to 135 mm)
	160		3.937" to 6.250"	(100 to 160 mm)
	200		3.937" to 7.875"	(100 to 200 mm)
	220		5.937" to 8.625"	(150 to 220 mm)
	250		6.875" to 9.750"	(175 to 250 mm)
	270		7.875" to 10.625"	(200 to 270 mm)
	300		9.000" to 11.750"	(230 to 300 mm)
	335		9.875" to 11.750"	(250 to 300 mm)
	350		9.875" to 13.725"	(250 to 350 mm)
	425		12.750" to 16.625"	(325 to 425 mm)
	450		13.750" to 17.625"	(350 to 450 mm)

Specifications

Torque Capacity		Overrunning Max.
lb.ft.	(Nm)	RPM
217	(294)	350
578	(784)	300
1158	(1570)	340
1807	(2450)	300
4337	(5880)	300
5782	(7840)	250
7966	(10800)	250
11580	(15700)	200
18070	(24500)	100
27437	(37200)	100
36140	(49000)	80
65053	(88200)	50
90720	(123000)	50
129811	(176000)	50
195453	(265000)	50
231594	(314000)	50
376156	(510000)	50
505966	(686000)	50

Example How To Order Code: BS Series Cam Clutch

BS	30	-	1B
Series	Frame Size	-	Bore Symbol
BS: Backstop Cam Clutch	30	-	L
			P
			1
			1B
			30
			1D
	50	-	1F
			1G
			1H
			1J
			1L
			45
			1P
			50
			2
	65	-	1H
			40
			1J
			1L
			45
			1P
			50
			2
			2B
			55
			2D
			60
			2G
			2H
	75	-	65
			1R
			2
			2B
			2D
			60
			2G
			2H
			65
			2J
			2L
			70
			2P
			2R
			75

Specifications

Bore Size		Bore Keyseat	Torque Capacity	
inch	(mm)		lb.ft.	(Nm)
0.750	(19.05)	3/16 x 3/32"	217	(294)
0.875	(22.23)	3/16 x 3/32"		
1.000	(25.40)	1/4 x 1/8"		
1.125	(28.58)	1/4 x 1/8"		
1.181	(30)	8 x 3.3 mm	578	(784)
1.250	(31.75)	1/4 x 1/8"		
1.375	(34.93)	5/16 x 5/32"		
1.438	(36.51)	3/8 x 3/16"		
1.500	(38.10)	3/8 x 3/16"		
1.625	(41.28)	3/8 x 3/16"		
1.750	(44.45)	3/8 x 3/16"		
1.771	(45)	14 x 3.8 mm		
1.875	(47.63)	1/2 x 1/4"		
1.968	(50)	14 x 3.8 mm		
2.000	(50.80)	1/2 x 1/4"	1158	(1570)
1.500	(38.10)	3/8 x 3/16"		
1.575	(40)	12 x 3.3 mm		
1.625	(41.28)	3/8 x 3/16"		
1.750	(44.45)	3/8 x 3/16"		
1.771	(45)	14 x 3.8 mm		
1.875	(47.63)	1/2 x 1/4"		
1.969	(50)	14 x 3.8 mm		
2.000	(50.80)	1/2 x 1/4"		
2.125	(53.98)	1/2 x 1/4"		
2.165	(55)	16 x 4.3 mm		
2.250	(57.15)	1/2 x 1/4"		
2.362	(60)	18 x 4.4 mm		
2.438	(61.91)	5/8 X 5/16"		
2.500	(63.50)	5/8 X 5/16"	1807	(2450)
2.559	(65)	18 x 4.4 mm		
1.938	(49.2)	1/2 x 1/4"		
2.000	(50.8)	1/2 x 1/4"		
2.125	(53.98)	1/2 x 1/4"		
2.250	(57.15)	1/2 x 1/4"		
2.362	(60)	18 x 4.4 mm		
2.438	(61.91)	5/8 x 5/16"		
2.500	(63.50)	5/8 x 5/16"		
2.559	(65)	18 x 4.4 mm		
2.625	(66.68)	5/8 x 5/16"		
2.750	(69.85)	5/8 x 5/16"		
2.755	(70)	20 x 4.9 mm		
2.875	(73.03)	3/4 x 3/8"		
2.938	(74.61)	3/4 x 3/8"		
2.952	(75)	20 x 4.9 mm		

BS SERIES CAM CLUTCH

Example How To Order Code:
BS Series Cam Clutch

BS	85	-	75
Series	Frame Size	-	Bore Symbol
BS: Backstop type	85	-	2F
			2G
			2H
			2J
			2L
			70
			2P
			2R
			75
			3
			3B
			80
			3D
			85
			2D
			2F
	95	-	2G
			2H
			2J
			2L
			2P
			2R
			3
			3B
			80
			3D
			85
			3G
			90
			95
			2G
			2H
	110	-	2J
			2L
			2R
			3
			3B
			3D
			85
			3G
			3H
			90
			3J
			95
			3L
			3P
			3R
			4
			105
			4D
			110

Specifications

The bore sizes listed below are standards.
Special bore sizes are available upon request.

Bore Size		Bore Keyseat	Torque Capacity	
inch	(mm)		lb.ft.	(Nm)
2.375	(60.33)	5/8 x 5/16"	4337	(5880)
2.438	(61.91)	5/8 x 5/16"		
2.500	(63.50)	5/8 x 5/16"		
2.625	(66.68)	5/8 x 5/16"		
2.750	(69.85)	5/8 x 5/16"		
2.755	(70)	20 x 4.9 mm		
2.875	(73.03)	3/4 x 3/8"		
2.938	(74.61)	3/4 x 3/8"		
2.952	(75)	20 x 4.9 mm		
3.000	(76.20)	3/4 x 3/8"		
3.125	(79.38)	3/4 x 3/8"		
3.149	(80)	22 x 5.4 mm		
3.250	(82.55)	3/4 x 3/8"		
3.346	(85)	22 x 5.4 mm		
2.250	(57.15)	1/2 x 1/4"		
2.375	(60.33)	5/8 x 5/16"	5782	(7840)
2.438	(61.91)	5/8 x 5/16"		
2.500	(63.50)	5/8 x 5/16"		
2.625	(66.68)	5/8 x 5/16"		
2.750	(69.85)	5/8 x 5/16"		
2.875	(73.03)	3/4 x 3/8"		
2.938	(74.61)	3/4 x 3/8"		
3.000	(76.20)	3/4 x 3/8"		
3.125	(79.38)	3/4 x 3/8"		
3.149	(80)	22 x 5.4 mm		
3.250	(82.55)	3/4 x 3/8"		
3.346	(85)	22 x 5.4 mm		
3.438	(87.31)	7/8 x 7/16"		
3.543	(90)	25 x 5.4 mm		
3.740	(95)	25 x 5.4 mm		
2.438	(61.91)	5/8 x 5/16"	7966	(10800)
2.500	(63.50)	5/8 x 5/16"		
2.625	(66.68)	5/8 x 5/16"		
2.750	(69.85)	5/8 x 5/16"		
2.938	(74.61)	3/4 x 3/8"		
3.000	((76.2)	3/4 x 3/8"		
3.125	(79.38)	3/4 x 3/8"		
3.250	(82.55)	3/4 x 3/8"		
3.346	(85)	22 x 5.4 mm		
3.438	(87.31)	7/8 x 7/16"		
3.500	(88.90)	7/8 x 7/16"		
3.543	(90)	25 x 5.4 mm		
3.625	(92.08)	7/8 x 7/16"		
3.740	(95)	25 x 5.4 mm		
3.750	(95.25)	7/8 x 7/16"		
3.875	(98.43)	1 x 1/2"		
3.938	(100.01)	1 x 1/2"		
4	(101.60)	1 x 1/2"		
4.134	(105)	28 x 6.4 mm		
4.250	(107.95)	1 x 1/2"		
4.330	(110)	28 x 6.4 mm		

Example How To Order Code:
BS Series Cam Clutch

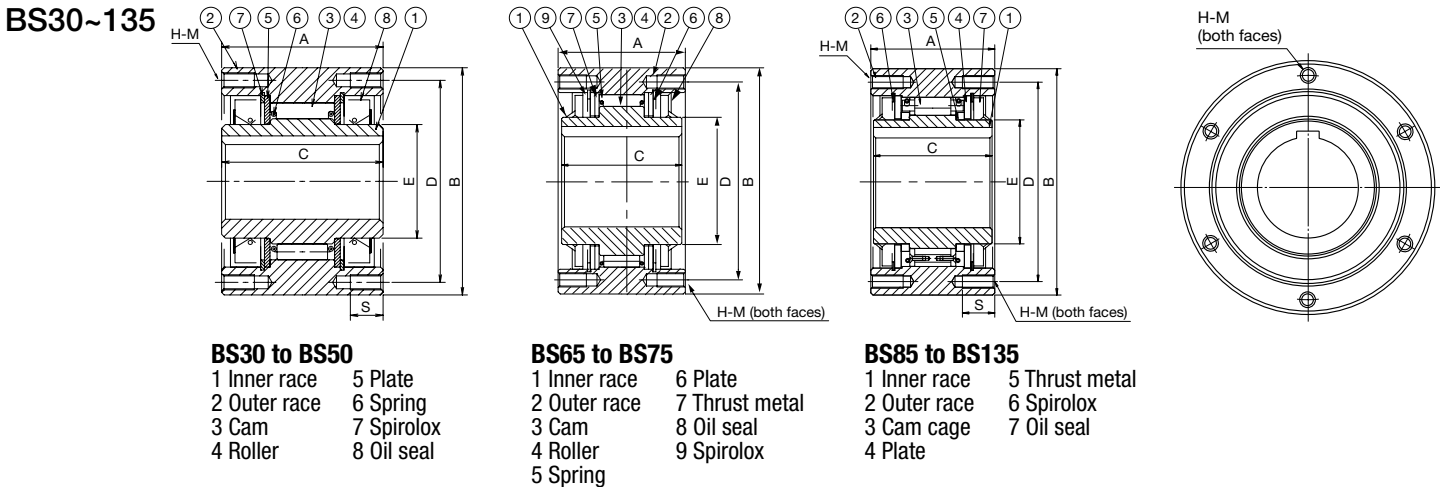
BS	135	-	4
Series	Frame Size	-	Bore Symbol
BS: Backstop type	135	-	2R
			3
			3B
			3D
			3G
			3H
			3J
			3L
			3P
			3R
			4
			105
			4D
			110
			4G
			4H
			4L
			4R
			5
			5D
			135
	160	-	MT0 Bore size is made-to-order, please specify bore and keyway requirement
	200		
	220		
	250		
	270		
	300		
	335		
	350		
	425		
	450		

Specifications

The bore sizes listed below are standards.
Special bore sizes are available upon request.

Bore Size		Bore Keyseat	Torque Capacity	
inch	(mm)		lb.ft.	(Nm)
2.938	(74.61)	3/4 x 3/8"	11580	(15700)
3.000	(76.20)	3/4 x 3/8"		
3.125	(79.38)	3/4 x 3/8"		
3.250	(82.55)	3/4 x 3/8"		
3.438	(87.31)	7/8 x 7/16"		
3.500	(88.90)	7/8 x 7/16"		
3.625	(92.08)	7/8 x 7/16"		
3.750	(95.25)	7/8 x 7/16"		
3.875	(98.43)	1 x 1/2"		
3.938	(100.01)	1 x 1/2"		
4.000	(101.60)	1 x 1/2"		
4.134	(105)	28 x 6.4 mm		
4.250	(107.95)	1 x 1/2"		
4.330	(110)	28 x 6.4 mm		
4.438	(112.72)	1 x 1/2"		
4.500	(114.30)	1 x 1/2"		
4.750	(120.65)	1-1/4 x 5/8"		
4.938	(125.43)	1-1/4 x 5/8"		
5.000	(127)	1-1/4 x 5/8"		
5.250	(133.35)	1-1/4 x 5/8"		
5.315	(135)	36 x 8.4 mm		
3.937" to 6.250"			18070	(24500)
3.937" to 7.875"			27437	(37200)
5.937" to 8.625"			36140	(49000)
6.875" to 9.750"			65053	(88200)
7.875" to 10.625"			90720	(123000)
9.000" to 11.750"			129811	(176000)
9.875" to 11.750"			195453	(265000)
9.875" to 13.725"			231594	(314000)
12.750" to 16.625"			376156	(510000)
13.750" to 17.625"			505966	(686000)

BS SERIES CAM CLUTCH



Additional information including shaft and bore tolerances are found in the Engineering section starting on page 108.

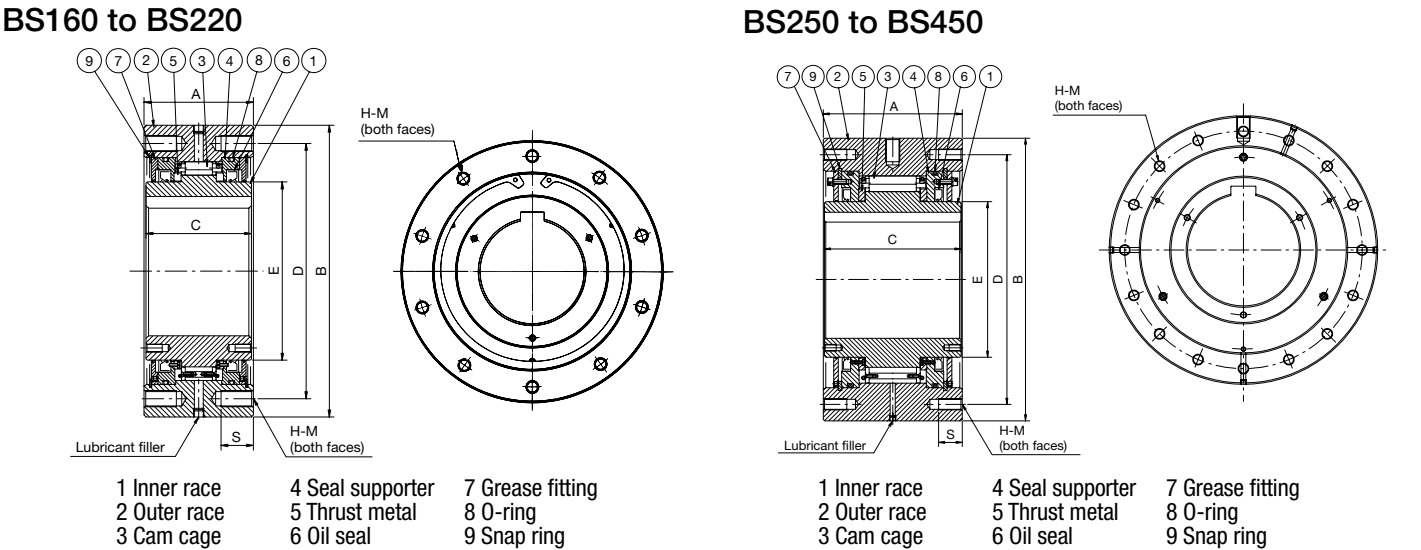
Dimensions and Capacities

Model	Torque lb.ft. (Nm)	Inner Race Max. Overrunning Speed (RPM)	Drag Torque lb.ft. (Nm)	A in. (mm)	B in. (mm)	C in. (mm)	D PCD in. (mm)	E in. (mm)	S in. (mm)	H-M Size x Pitch No. of Tapped Holes	Weight* lb. (kg)
BS30	217 (294)	350	0.43 (0.58)	2.520 (64)	3.543 (90)	2.520 (64)	3.150 (80)	1.772 (45)	0.512 (13)	M6 x P1.0 (4)	5.1 (2.3)
BS50	578 (784)	300	0.72 (0.98)	2.638 (67)	4.921 (125)	2.638 (67)	4.331 (110)	2.756 (70)	0.630 (16)	M8 x P1.25 (4)	10.3 (4.7)
BS65	1158 (1570)	340	2.89 (3.92)	3.543 (90)	6.299 (160)	3.346 (85)	5.512 (140)	3.543 (90)	0.787 (20)	M10 x P1.5 (6)	28.6 (13)
BS75	1807 (2450)	300	4.34 (5.88)	3.543 (90)	6.693 (170)	3.346 (85)	5.906 (150)	3.937 (100)	0.787 (20)	M10 x P1.5 (6)	32.3 (14.7)
BS85	4337 (5880)	300	5.78 (7.84)	4.528 (115)	8.268 (210)	4.331 (110)	7.283 (185)	4.528 (115)	1.181 (30)	M12 x P1.75 (6)	59.8 (27.2)
BS95	5782 (7840)	250	7.23 (9.8)	4.528 (115)	9.055 (230)	4.331 (110)	7.874 (200)	5.118 (130)	1.181 (30)	M14 x P2.0 (6)	70.8 (32.2)
BS110	7966 (10800)	250	10.84 (14.7)	4.528 (115)	10.630 (270)	4.331 (110)	8.661 (220)	5.906 (150)	1.181 (30)	M16 x P2.0 (6)	84.9 (38.6)
BS135	11580 (15700)	200	14.46 (19.6)	5.315 (135)	12.598 (320)	5.118 (130)	11.024 (280)	7.087 (180)	1.181 (30)	M16 x P2.0 (8)	167.4 (76.1)

* Listed weight is for Cam Clutch with smallest bore. This is max. possible weight.

Chamfer of the Bore End Faces

Shaft Diameter		Chamfer	
Under 2"	(Under 50 mm)	0.06"	(1.5 mm)
2" thru 4-15/16"	(50 to 125 mm)	0.08"	(2 mm)
4-15/16" thru 11-7/32"	(125 to 285 mm)	0.12"	(3 mm)



Dimensions and Capacities

Model	Torque lb.ft. (Nm)	Inner Race Max. Overrunning Speed (RPM)	Drag Torque lb.ft. (Nm)	A in. (mm)	B in. (mm)	C in. (mm)	D PCD in. (mm)	E in. (mm)	S in. (mm)	H-M Size x Pitch No. of Tapped Holes	Grease Filler Size	Grease Quantity lbs. (kg)	Weight * lb. (kg)
BS160	18070 (24500)	100	25 (34.3)	5.315 (135)	14.173 (360)	5.118 (130)	12.402 (315)	8.661 (220)	1.575 (40)	M20 x P2.5 (10)	PT 1/4	0.26 (0.12)	216 (98.1)
BS200	27437 (37200)	100	33 (44.1)	5.906 (150)	16.929 (430)	5.709 (145)	14.961 (380)	10.433 (265)	1.575 (40)	M22 x P2.5 (8)	PT 1/4	0.31 (0.14)	367 (167)
BS220	36140 (49000)	80	54 (73.5)	9.252 (235)	19.685 (500)	9.055 (230)	16.535 (420)	11.417 (290)	1.575 (40)	M20 x P2.5 (16)	PT 1/4	1.76 (0.8)	662 (301)
BS250	65053 (88200)	50	69 (93.1)	11.614 (295)	23.622 (600)	11.417 (290)	20.866 (530)	12.992 (330)	1.969 (50)	M24 x P3.0 (16)	PT 1/4	2.42 (1.1)	1276 (580)
BS270	90720 (123000)	50	72 (98)	11.614 (295)	25.591 (650)	11.417 (290)	22.638 (575)	14.567 (370)	1.969 (50)	M24 x P3.0 (16)	PT 1/4	2.64 (1.2)	2112 (640)
BS300	129811 (176000)	50	80 (108)	11.614 (295)	30.709 (780)	11.417 (290)	27.165 (690)	18.504 (470)	2.362 (60)	M30 x P3.5 (16)	PT 1/4	2.86 (1.3)	2094 (952)
BS335	195453 (265000)	50	101 (137)	12.008 (305)	33.465 (850)	12.598 (320)	29.528 (750)	19.488 (495)	2.756 (70)	M36 x P4.0 (16)	PT 1/4	3.08 (1.4)	2508 (1140)
BS350	231594 (314000)	50	116 (157)	12.598 (320)	36.614 (930)	14.173 (360)	32.087 (815)	21.063 (535)	2.756 (70)	M36 x P4.0 (16)	PT 1/4	3.30 (1.5)	3520 (1600)
BS425	376156 (510000)	50	159 (216)	17.323 (440)	40.551 (1030)	17.717 (450)	37.008 (940)	25.000 (635)	2.756 (70)	M36 x P4.0 (18)	-	Oil: 6000 ml	5280 (2400)
BS450	505966 (686000)	50	181 (245)	17.717 (450)	42.913 (1090)	18.898 (480)	38.976 (990)	25.394 (645)	3.150 (80)	M42 x P4.5 (18)	-	Oil: 7000 ml	6204 (2820)

* Listed weight is for Cam Clutch with smallest bore. This is max. possible weight.

Chamfer of the Bore End Faces

Shaft Diameter		Chamfer	
2" thru 4-15/16"	(50 to 125 mm)	0.08"	(2 mm)
4-15/16" thru 11-7/32"	(125 to 285 mm)	0.12"	(3 mm)
Over 11-7/32"	(Over 285 mm)	0.20"	(5 mm)

Interchange Chart*

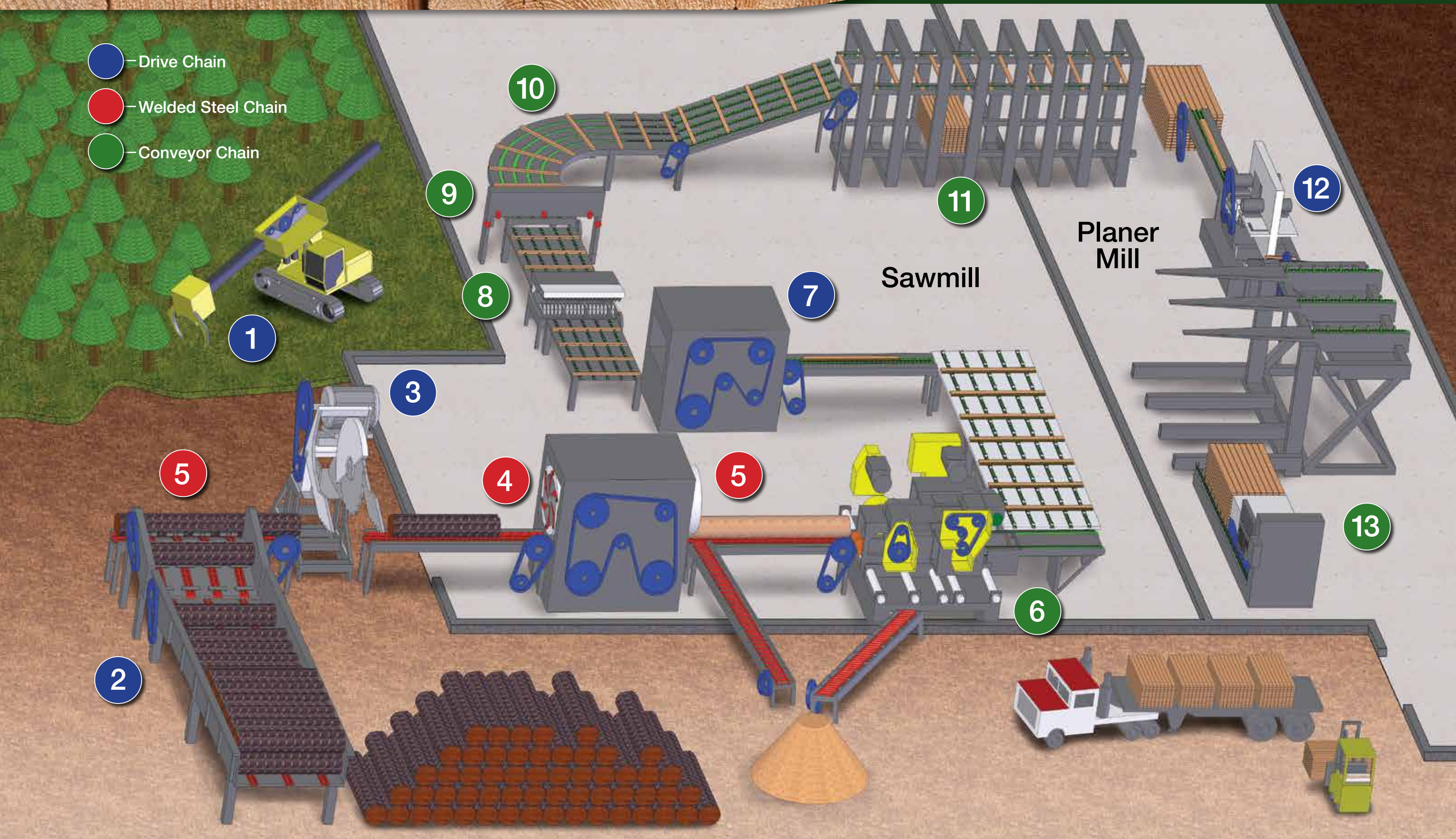
TSUBAKI Equivalent	EPT	Falk	Formsprag USA	Marland	Renold	Ringspann	Stieber
BB	KK		CSK	CSK	REUK	ZZ	CSK(KK)
BB-GD	KK-2GD		CSK...2RS	CSK2RS	REUK2RS	ZZ-2RS	CSK..2RS
BB-K	KK-1K		CSK-P	CSK-P	REUKC	ZZ-P	CSK..P
BB-KK	KK-2K		CSK-PP	CSK-PP	REUKCC	ZZ-PP	CSK..PP
BREU			RIZ, RINZ			BM-X	RIZ, RINZ
BR-HT			RSBI, RSCI			FXM	RSBI, RSCI
BS & BS-HS	CB	NRT, NRTH	LLH	MA, IBS	SH, SLH	FRH	
BSEU			RSBW		REGV	FA	AV, RSBW
BUS200	B200A		FS20	R200	DM	RC	S200
LD							
MGUS	MG-A		FS0	RMS	SO	FB, FRS	FS0
MGUS-R			HSB				
MIUS	MI-A		HPI	RMS	SX	FRS	HPI
MZ, MZ-C			FWW				SMZ
MZEU, MZEU-K			AL, ALPM		REGL, REGLP	FBF, FGR	AL, ALP, GFR, GFRN
OB SERIES			CDU	CEUS			AL..G
PBUS	PB-A		FSR	FSR	SB		
SR, SRD			BAT				BAT
TFS	NFS		ASNU		REUSNU	FSN	ASNU, NFS
TSS	NSS		AS	AS	REUS	FCN	AS, NSS

* The interchange chart above is to be used as a general guide when looking to interchange clutches.
Full technical product specifications should be verified to confirm suitability.



SAWMILL/PLANER MILL LAYOUT

Application		Challenge	Products			
			Tsubaki Solution			WSC (Welded steel chain)
			Chain Family	Chain Product	Sprockets	
1	Delimber	Impact load from operating conditions.	Tsubaki Standard Premium Chain	120-2 cott, 140-2 cott	Usually 11,12 or 16T with high hardness and as per drawing.	
2	Log Unscrambler	Log diameter varies from mill to mill, operating overload and jam-ups are common. Sand/grit conditions can lead to abrasion on WSC.	Super Series Roller Chain	100HT to 200HT	Remote and need quick changout – use Split Style. Forward/backward operation can result in keyway backlash – use Powerlock.	WR82XHD, WR124(XHD), WR132(XHD) Consider IBR for abrasive resistance.
3	Cross Cut Slasher	Remote access, Lambda offers maintenance-free operation.	Lambda Roller Chain	100Lambda to 140Lambda	Remote and need quick change – use Split Style.	WR124(XHD), WR132(XHD)
4	Debarker Infeed Conveyor	Start/stop operation that is required by the operator which places demanding and varying loads on the drive chain.	Super Series Roller Chain	80HT to 160HT single and multi strand.	For quick changeout – use Split Style. Forward/backward operation can result in keyway backlash – use Powerlock.	WD(H)104, 110, 120. WH124(XHD) with C cradle attachment.
	Debarker	For Ring Debarkers. Shock load from crooked logs. High speed operation.	Super Series Roller Chain	80HT to 160HT single and multi strand.		WD(RS)480(XHD), also sizes 104, 110, 120 and 132. With or without wing attachments.
		For Drum Debarkers. General operation overload and/or high impact.	Titan	80TT to 160TT single and multi strand.	Knife jam-up can require back/forth operation which can cause keyway backlash – use Powerlock.	
			Super Series Roller Chain	Super120 to Super160-3RB		
5	Log Deck Bin and Infeed	Access can be confined. Lambda offers maintenance-free operation.	Lambda Roller Chain	100Lambda to 140Lambda		Log deck infeed: WHC124, 132 (IBR) Log deck: H78B camelback, WH 78, 82. WDH110, 111. WH(C) 124, 132. WH124XHD. CC5riv.
6	Main Sawline Infeed Conveyor Main Sawline Optimizer Canter Quad Canter	For Sharp Top Chain tip wear can be the limiting factor.	Titan	80TT to 100TT	Quality hardened teeth.	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
			Sharp Top Chain	RF32B Sharp Top		
			Double Length Infeed (DLI)	US3011 / US1245 / 100MM		
7	Edger	For Drive Chain high speed makes lubrication difficult. Lots of articulation increases wear.	Titan	80TT to 140TT	Quality hardened teeth. Misalignment is a common issue that reduces Sprocket life.	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
		For Sharp Top Chain tip wear can be the limiting factor.	Sharp Top Chain	80ST to 120ST, 3 or 4 point, single or multi strand.	Quality hardened teeth.	
8	Trimmer	Relative length difference between strands is critical for proper operation. Lambda is used to increase consistent life of all strands. Limited surface contact can result in insufficient weld. Press fit is the correct construction.	81XPremium, 81XLambda, C2060H C2080H	Tsubaki quick change press fit Trimmer Lugs	Adjustable Sprockets that can be supplied as split for convenience and quick changeout.	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
9	Scanner	Relative length difference between strands is critical for proper operation. Lambda is used to increase consistent life of all strands.	81XPremium, 81XLambda, C2060H C2080H	SK1 or Tsubaki quick change press fit Trimmer Lug attachment every 8, 10 or 12 links.	Adjustable Sprockets that can be supplied as split for convenience and quick changeout.	
10	Curved Conveyor	Variable strand wear due to cycle difference.	Premium Roller Chain and Lambda Curved Chain	80CU or 80CULambda c/w WSAO attachment		
11	Drop Sorter	Can only accept minimal elongation for proper indexing operation. Lambda increases wear life.	Premium Conveyor Chain. Lambda.	C2100H, C2100HLambda, 81X, 81X Lambda, 3939-B4	Quality hardened teeth. Split and adjustable at the head.	
		Maintenance-free operation.	Lambda	100 to 140Lambda		
12	Planer	For Drive Chain high speed makes lubrication difficult. Lots of articulation increases wear.	Titan	80TT to 140TT	Quality hardened teeth. Misalignment is a common issue that reduces Sprocket life.	
13	Stacker	Shock load.	Super Series Roller Chain or Leaf Chain	80HT to 140HT, BL1066	For quick changeout – use Split Style.	
	Wrapping Machine	Marking of product reduces grade and/or results in product loss.	Premium Conveyor Chain. Lambda.	81XLambda		
	Forklift		Leaf Chain	BL 844,866,1066		





FORESTRY'S
CRITICAL
APPLICATIONS

DELIMBER

Challenge	
Impact loads from harsh operating conditions are common with Delimber operations.	
Solution	Typical size range for this application
Drive chain: Tsubaki standard premium grade chain complete with PerformMax lube-grooved bushings and ring coined connecting links.	120-2 cott to 140-2 cott
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth that is a necessity for the demands of this application.	



140-2 Chain



LOG UNSCRAMBLER

Application: Log Unscrambler **Savings:** \$55,700.00
Tsubaki solution: Tsubaki 200HT was selected to replace an original design using standard chain, increasing the life from 1 to 13 months.

It really mattered to this Tsubaki customer

Power-lock
Sprocket



Split
Sprocket



Challenge	
Log diameter varies from mill to mill. Operating overload and jam-ups are common.	
Sand and grit conditions can lead to abrasion on mill chains.	
Solution	Typical size range for this application
Drive chain: HT chain provides up to 30% greater ultimate tensile strength over standard roller chain.	100HT to 160HT
Mill Chain: IBR (induction hardened barrels and rivets) for abrasive resistance.	WR82XHD, WR124(XHD), WR132(XHD)
Sprockets: Remote access and the need for quick changeout can be solved by split design mill chain sprockets.	
Forward/backward operation can result in keyway backlash. The use of Powerlock sprockets eliminates the need for a keyway.	



HT Chain



CROSS CUT SLASHER

DEBARKER INFEEED
CONVEYOR/DEBARKER

When strength really matters

Split
Sprocket



Lambda
Chain



Challenge	
Remote access.	
Solution	Typical size range for this application
Drive chain: Lambda chain offers maintenance-free operation.	100Lambda to 140Lambda
Mill chain	WR124(XHD), WR132(XHD)
Sprockets: Remote access and the need for quick changeout can be solved by split design sprockets.	

Challenge – Debarker Infeed conveyor	
Start/stop operation is required by the operator. This places demanding and varying loads on the drive chain.	
Solution	Typical size range for this application
Drive chain: HT chain provides up to 30% greater ultimate tensile strength over standard roller chain.	80HT to 160HT single and multi strand.
Mill chain	WD(H)104, 110, 120. WH124(XHD) with C cradle attachment.
Sprockets: Forward/backward operation can result in keyway backlash. The use of Powerlock sprockets eliminates the need for a keyway.	

Challenge – Debarker	
For ring debarkers there is shock load from crooked logs. Also high speed operation limits the effectiveness of lubrication due to centrifugal force. Knife jam-up can require forward / backward operation. For drum debarkers, general operation overload and/or high impact.	
Solution	Typical size range for this application
Drive chain: 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.	For ring debarker 80TT or HT to 160TT or HT single and multi strand. For drum debarker Super 120 to Super 160-3.
Drag chain	WD(RS)480(XHD), also sizes 104, 110, 120 and 132. With or without wing attachments.
Sprockets: Forward/backward operation can result in keyway backlash. The use of Powerlock sprockets eliminates the need for a keyway.	



LOG DECK BIN AND INFEED

MAIN
SAW LINE

Application: Canter in/out feeds **Savings:** \$29,400.00
Tsubaki solution: Previous chain brand suffered cracked sideplates and severe elongation after 6 months. Tsubaki features and quality lasted 30 months.

It really mattered to this Tsubaki customer

COST SAVINGS!

Split
Sprocket



Lambda
Chain



Challenge	
Access to the drive can be confined.	
Solution	Typical size range for this application
Drive chain: Lambda chain offers maintenance-free operation.	100Lambda to 140Lambda
Mill chain	Log deck infeed: WHC 124, 132 (IBR) Log deck: H78B camelback, WH 78 ,82. WDH110, 111. WH(C) 124, 132. WH124XHD. CC5riv.
Sprockets: Remote access and the need for quick changeout can be solved by split design sprockets.	

Challenge	
Drive: High speeds can limit the effectiveness of lubrication due to centrifugal force. Sharp top conveyor: Tips can wear prematurely compared to normal wear of the load bearing chain components.	
Solution	Typical size range for this application
Drive chain: 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.	80TT to 100TT
Sharp top conveyor: NEW Tsubaki spec sharp top chain increases tip area hardness by 20%. This increases overall chain life.	RF32B Sharptop
Drag chain	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth that is a necessity for the demands of this application.	
Double Length Infeed (DLI) A double length infeed conveyor is a critical sawmill application that cradles the log for scanning and rotation in order to optimize the log for primary breakdown.	Chain product: US3011 / US1245 / 100MM

Sharp
Top Chain
RF32B



Titan Chain



Application: Bull Edger Drive
Savings: \$27,333.00
Tsubaki solution: Titan lasted 23 months at this mill, providing significant savings in replacement cost.

COST SAVINGS!

EDGER

It really mattered to this Tsubaki customer

Sharp Top Chain



Titan Chain

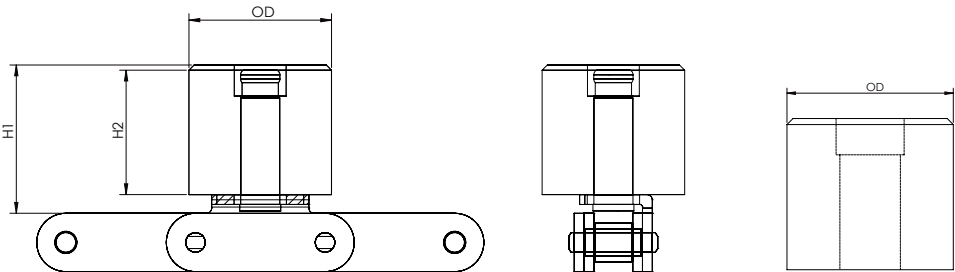


Challenge	
Drive: High speeds can limit the effectiveness of lubrication due to centrifugal force. Sharp top conveyor: Tips can wear prematurely compared to normal wear of the load bearing chain components.	
Solution	Typical size range for this application
Drive chain: Titan chain integrates the latest advancements from Tsubaki's research and development to increase the wear life of roller chains in high speed and harsh environments.	80TT to 140TT
Sharp top conveyor: NEW Tsubaki spec sharp top chain increases tip area hardness by 20%. This increases overall chain life.	80ST to 120ST, 3 or 4 point, single or multi strand.
Drag chain	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth. Drive chain/sprocket misalignment is common for this application.	

TRIMMER

When timing really matters

Quick Trimmer Lug (QTL) Premium Modular Pin Style



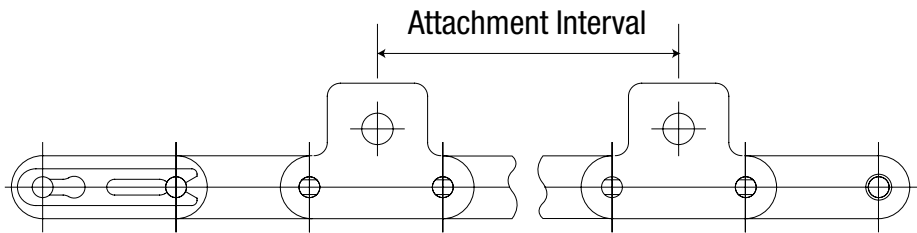
Challenge	
Relative length difference between strands is critical for proper operation. Welds on lugs can cause fatigue due to poor welds and/or insufficient contact area.	
Solution	Typical size range for this application
81XPremium is used to provide consistent relative tolerance between strands. 81X Premium Lambda is used to provide consistency and increased life.	81Xpremium, 81XLambda, C2060H C2080H
Tsubaki's NEW trimmer lug design utilizes proper attachment chain construction principles of press fit vs. weld. Pin link plates are slip fit for ease of assembly. Quick connect rollers eliminate need for C clip.	3 lug sizes to choose from
Drag chain	WD(H)(RS)110, 480(XHD). Can be supplied with wing attachments.
Sprockets: Use Premium Tsubaki adjustable sprockets that can be supplied as split for convenience and quick changeout.	

Split Adjustable Sprocket



SCANNER

Scanner Lugs
on SK1 attachment



Challenge	
Relative length difference between strands is critical for proper operation. Welds on lugs can cause fatigue due to poor welds and/or insufficient contact area.	
Solution	Typical size range for this application
81X Premium is used to provide consistent relative tolerance between strands. 81X Premium Lambda is used to provide consistency and increased life.	81X Premium 81X Lambda, C2060H C2080H
Tsubaki's NEW trimmer lug design utilizes proper attachment chain construction principles of press fit vs. weld. Pin link plates are slip fit for ease of assembly. Quick connect rollers eliminate need for C clip. Scanner lug as illustrated below can also be used.	3 lug sizes to choose from
Sprockets: Use Premium Tsubaki adjustable sprockets that can be supplied as split for convenience and quick changeout..	

Split Adjustable
Sprocket



CURVED CONVEYOR

When flexibility really matters

Curved Attachment Chain

Challenge	
Inner strand on a curved conveyor is subject to more cycles than the outer strand, therefore rate of wear is increased.	
Solution	Typical size range for this application
Lambda chain extends wear life by oil impregnated bushings contacting special surface pins. (Lambda chain must be supported by sideplates rather than rollers).	80CU or 80CULambda c/w WSAO attachment every 8,10 or 12 links.
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth that is a necessity for the demands of this application.	



Lambda
Chain



DROP SORTER

Application: Drop Sorter **Savings:** \$5,950.00
Tsubaki solution: Lambda extended the wear limit from 18 to 36 months. Reduced replacement man time means cost savings.

It really mattered to this Tsubaki customer

COST SAVINGS!

Split Adjustable Sprocket



Challenge	
Relative length difference between strands is critical for proper operation. Only minimal elongation is accepted for proper indexing operation.	
Solution	Typical size range for this application
Premium conveyor chain is required on this application to provide consistent relative tolerance between strands. Premium Lambda is used to provide consistency and increased life.	C2100H / C2100HLambda, 81XPremium / 81XLambda
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth that is a necessity for the demands of this application. Split and adjustable sprockets are recommended at the head shaft.	



81X Lambda Chain

PLANER

Application: Planer Drive **Savings:** \$3,065.00
Tsubaki solution: Drive running at 1200 rpms makes Titan the only option. Resulting life was 7.5 months compared to 1.

It really mattered to this Tsubaki customer

COST SAVINGS!

Challenge	
Lots of articulation results in increased chain wear. High speed operation makes proper lubrication difficult.	
Solution	Typical size range for this application
Drive chain: 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.	80TT to 140TT
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth. Drive chain/sprocket misalignment is common for this application.	



Titan Chain



STACKER/ WRAPPING MACHINE/FORKLIFT

HT Chain

Challenge	
Stacker: Shock load.	
Wrapping machine: Marking of product reduces grade and/or results in scrap product.	
Solution	Typical size range for this application
Stacker: HT chain provides up to 30% greater ultimate tensile strength over standard roller chain.	80HT to 140HT
Wrapping machine: Lambda chain provides maintenance-free operation, eliminating the need for lubrication.	81XLambda
Forklift	BL844, 866, 1066



81X Lambda Chain

TSUBAKI SMART TOOTH

When expertise really matters

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 sprocket that was removed from service due to chain failure. Notice the difference in chain engagement between the new and worn sprocket.



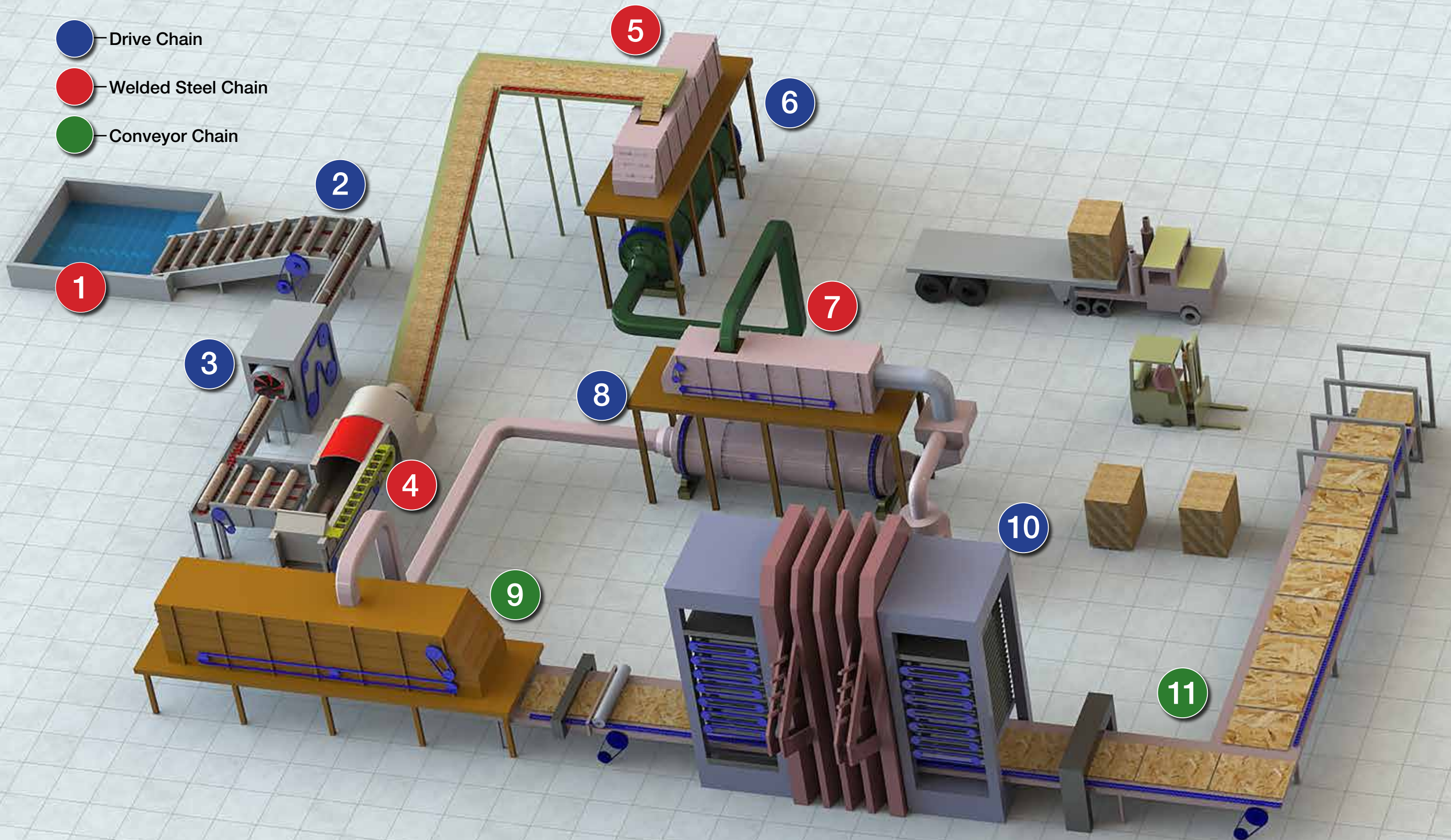
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2

OSB MILL LAYOUT

Application		Challenge	Products				Kabelshclepp What type of KSP?
			Tsubaki Solution				
			Chain Family	Chain Product	Sprockets	Welded steel chain	
1	Log Pond	Corrosion on pins due to hot temperature of the pond and PH level / excessive wear / pins breaking / barrel cracking due to lack of pitch line clearance / Heavy loads can lead to fatigue failures on drive chains	Super Series Roller Chain	100HT to 200HT	Remote and need quick change out - use Split Style. WH157 Sprocket with Pitch Line Clearance	WH157IBR, WH157CHP, WH157 400 Series SS pins, Double Lock on pins (welded pins)	
2	Jackladder	Pin & Bushing Wear / pins breaking / Heavy Loads can lead to fatigue failure on drive chains	Super Series Roller Chain	100HT to 200HT	Remote and need quick change out - use Split Style. WSC Sprockets with Pitch Line Clearance	WH132XHDIBR, WH132XHDCHP / WH124XHDIBR, WH124XHDCHP / WH157IBR, WH157CHP. Consider double lock if issues with pins breaking and backing out	
3	Debarker (Drum & Ring)	For Drum Debarker. General operation overload and/or high impact.	Super Series Roller Chain	160SUPER -3RB	Multistrand Roller Chains sprockets. Finished Bore, Bushing or PowerLock. Smart Tooth (ie: T160C54 Powerlock with Smart Tooth)	WH124XHD(IBR), WH132XHD(IBR) WH157(IBR)	
		For Ring Debarkers. Shock load from crooked logs. High speed operation. Mode of Failure: Wear	Tsubaki Standard Premium Chain	120 to 160	Roller Chain Sprockets, Drum Sprockets PowerLocks	WH132XHDIBR Log Cradle	
			Super Series Roller Chain	120SUPER - 160SUPER			
			Titan Series Chain	120TT to 160TT			
4	Strander / Flakers	Chain Elongation	Engineered Class Chain	US64SCB / 81XHD	Engineered Class drive and idler assemblies (i.e., US64C21 Drives, US64A21 Idler Assemblies)	WH106XHD / WH106IBR A22, WH132 / WH132IBR A22 joined with flights	0950 / 1250 Varittrak S Steel
5	Wet Bins	Infeed and Rake Back Conveyors: Uneven Elongation			WH106 Sprockets; Consider split for ease of installation. Relief Grooves - for material build up	WH106IBR / WH106XHD / WH106XHDIBR A22	
		Bottom Belt Conveyor: elongation	Engineered Class Chain	933F c/w Angle Iron (9" Pitch)	Drum Sprockets		
6	Dryers	Chain Drum Drive: Elongation Heavy loads	Heavy Series Roller Chain	100H-2 160H	Large Segmental Sprocket, WSC Sprockets, Smart Tooth	WH132(XHD)IBR A22, WH124A226L	
			Engineered Class Chain	US1030			
7	Dry Bins	Infeed and Rake Back Conveyors: Uneven Elongation			WH106 Sprockets; Consider split for ease of installation. Relief Grooves - for material build up	WH106IBR / WH106XHD / WH106XHDIBR A22	
		Bottom Belt Conveyor: elongation	Engineered Class Chain	933F c/w Angle Iron (9" Pitch)	Drum Sprockets		
8	Blenders	Elongation due to heavy loading with the addition of wax/resin; Speed	Heavy Series Titan Roller Chain	140HTT	Roller Chain Sprockets		
9	Main Forming Line and Orientators	Uneven wear between drive and non drive side. Increased sprocket wear due to excession takeup tension.	Tsubaki Standard Attachment Chain	Matched & Tagged Roller Attachment Chain (I.e., 140K18L/ 140K114L/ 120A116L/ 140A118L / 140K18LRL274P-M&T / Other) 140 with special A1 attachment	Hardened Sprockets SmartTooth Relief Grooves - for material build up Power Locks - for adjustment		S1250 Varittrak Steel
10	Load / Press / Unload	Elongation. Timing is critical for loading mats into the press.	Tsubaki Premium Chain	80 Matched & Tagged, 100 to 160, 100-2	Roller Chain Sprockets		
11	Finishing Line	Elongation due to lack of lubrication. Cannot contaminate finished product.	Tsubaki Premium 81X	81XPREMIUM, 81XLAMBDA	81X Sprockets		
12	Boiler / Heat Plant SSC Conveyor	Heavy loads / Corrosion / Abrasion	Engineered Class Chain	X-678 / S-698 / UWL	Split Sprockets SmartTooth	WH124IBRSA22	

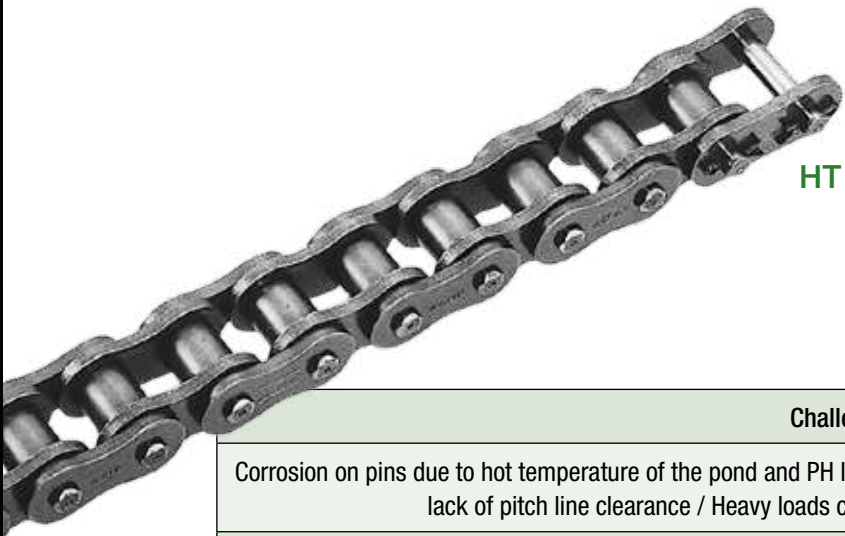




FORESTRY'S
CRITICAL
APPLICATIONS



LOG POND



HT Series Chain

Challenge	
Corrosion on pins due to hot temperature of the pond and PH level / excessive wear / pins breaking / barrel cracking due to lack of pitch line clearance / Heavy loads can lead to fatigue failures on drive chains	
Solution	Typical size range for this application
Drive Chain: HT chain provides up to 30% greater ultimate tensile strength over standard roller chain	100HT to 200HT
Welded Steel Chain: IBR (induction hardened barrel and rivets) and CHP (chrome hardened pin) for abrasive resistance.	WH157IBR, WH157CHP, WH157 400 Series SS pins, Double Lock on pins (welded pins)
Sprockets: Remote access and the need for quick changeout can be solved by split design.	



Challenge	
Pin & Bushing Wear / pins breaking / Heavy Loads can lead to fatigue failure on drive chains	
Solution	Typical size range for this application
Drive Chain: HT chain provides up to 30% greater ultimate tensile strength over standard roller chain	100HT to 200HT
Welded Steel Chain: IBR (induction hardened barrel and rivets) and CHP (chrome hardened pin) for abrasive resistance.	WH132XHDIBR, WH132XHDCHP / WH124XHDIBR, WH124XHDCHP / WH157IBR, WH157CHP. Consider double lock if issues with pins breaking and backing out
Sprockets: Remote access and the need for quick changeout can be solved by split design.	

Split Adjustable Sprocket

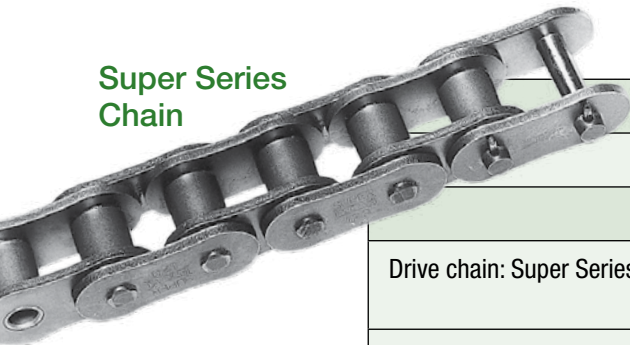


DEBARKER (DRUM & RING)

STRANDER / FLAKERS

When selection really matters

Super Series Chain



Challenge - Drum Debarker		
General operation overload and/or high impact.		
Solution	Typical size range for this application	
Drive chain: Super Series for higher tensile strength and resist shock load	160SUPER-3RB	
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH124XHD(IBR), WH132XHD(IBR) WH157(IBR)	
Sprockets: multistrand roller chain sprockets. Finished bore, bushing or Powerlock. Smart Tooth is a simple visual identifier indicating when a sprocket has worn past its usable life.	T160C54 Powerlock with Smart Tooth	

Challenge - Ring Debarker	
Shock load from crooked logs. High speed operation. Mode of Failure: Wear	
Solution	Typical size range for this application
Drive Chain: Super Series for higher tensile strength and resist shock load. Titan Series Chain for increased wear life in high speed and harsh environments.	120 to 160; 120SUPER to 160SUPER; 120TT to 160TT
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH132XHDIBR Log Cradle
Sprockets: roller chain sprockets, drum sprockets, Powerlocks	

Titan Chain



81X Chain



Challenge - Strander/Flaker	
Chain Elongation	
Solution	Typical size range for this application
Engineered Class Chain: designed to exceed the listed ultimate strength ratings.	US64SCB / 81XHD
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH106XHD / WH106IBR A22, WH132 / WH132IBR A22 joined with flights
Sprockets: Engineered class drive and idler assemblies	US64C21 Drives, US64A21 Idler Assemblies
Kabelschlepp: Varitrak S Steel is extremely robust and stable steel chains for heavy loads and harsh environmental conditions	0950 / 1250 Varitrak S Steel

Varitrak S Series



WET BINS

DRYERS

When consistency really matters



Attachment Chain

Challenge - Wet Bins	
Infeed and Rake Back Conveyors: Uneven Elongation; Bottom Belt Conveyor: Elongation	
Solution	Typical size range for this application
Engineered Class Chain: designed to exceed the listed ultimate strength ratings.	933F c/w Angle Iron (9" Pitch)
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH106IBR / WH106XHD / WH106XHDIBR A22
Sprocket: consider split for ease of installation; drum sprockets; Relief Grooves - for material build up	WH106 sprockets



Split Adjustable Sprocket



Heavy Series Chain

Challenge - Dryers	
Chain Drum Drive: Elongation Heavy loads	
Solution	Typical size range for this application
Drive Chain: Heavy series chain - 10% greater shock load capacity than standard chain.	100H-2 160H
Engineered Class Chain: designed to exceed the listed ultimate strength ratings.	US1030
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH132(XHD)IBR A22, WH124A226L
Sprocket: Large Segmental and WSC sprockets. Smart Tooth is a simple visual identifier indicating when a sprocket has worn past its usable life.	



DRY BINS

BLENDERS

When innovation really matters



Attachment Chain

Challenge - Dry Bins	
Infeed and Rake Back Conveyors: Uneven Elongation; Bottom Belt Conveyor: Elongation	
Solution	Typical size range for this application
Engineered Class Chain: designed to exceed the listed ultimate strength ratings.	933F c/w Angle Iron (9" Pitch)
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH106IBR / WH106XHD / WH106XHDIBR A22
Sprocket: consider split for ease of installation; drum sprockets; Relief Grooves - for material build up	WH106 sprockets



Split Adjustable Sprocket



Challenge - Blenders	
Elongation due to heavy loading with the addition of wax/resin; Speed	
Solution	Typical size range for this application
Drive Chain: Heavy Series Titan Chain for increased wear life in high speed and harsh environments.	140HTT
Quality Roller Chain Sprockets	



Titan Chain



MAIN FORMING LINE
AND ORIENTATORS

LOAD / PRESS /
UNLOAD

When accuracy really matters



Attachment Chain

Smart Tooth



Varitrak S Series

Challenge - Main Forming Line & Orientators	
Uneven wear between drive and non drive side. Increased sprocket wear due to excessive takeup tension.	
Solution	Typical size range for this application
Drive Chain: standard premium attachment chain matched and tagged	Matched & Tagged Roller Attachment Chain (i.e., 140K18L/ 140K114L/ 120A116L/ 140A118L / 140K18LRL274P-M&T / Other) / 140 with special A1 attachment
Sprockets: Premium Tsubaki sprockets with high carbon 1030 or 1045 material allow for a consistent hardened tooth. Smart Tooth is a simple visual identifier indicating when a sprocket has worn past its usable life. Relief Grooves - for material build up and power lock for adjustment	
Kabelschlepp: Varitrak S Steel is extremely robust and stable steel chains for heavy loads and harsh environmental conditions	1250 Varitrak S Steel

80 Chain



Challenge - Load/Press/Unload	
Elongation. Timing is critical for loading mats into the press.	
Solution	Typical size range for this application
Drive Chain: Tsubaki standard premium grade chain complete with PerformMax lube-grooved bushings and ring coined connecting links.	80 Matched & Tagged, 100 to 160, 100-2
Roller Chain Sprockets	





81X Lambda Chain

Challenge - Finishing Line	
Elongation due to lack of lubrication. Cannot contaminate finished product.	
Solution	Typical size range for this application
Lambda chain provides maintenance-free operation, eliminating the need for lubrication	81XLambda, 81XPremium
Sprockets: 81X	

Challenge - Boiler / Heat Plant / SSC Conveyor	
Heavy loads / Corrosion / Abrasion	
Solution	Typical size range for this application
Engineered Class Chain: designed to exceed the listed ultimate strength ratings.	X-678 / S-698 / UWL
Welded Steel Chain: IBR (induction hardened barrel and rivets) for abrasive resistance.	WH124IBRSA22
Sprockets: Remote access and the need for quick changeout can be solved by split design. Smart Tooth is a simple visual identifier indicating when a sprocket has worn past its usable life.	



Smart Tooth



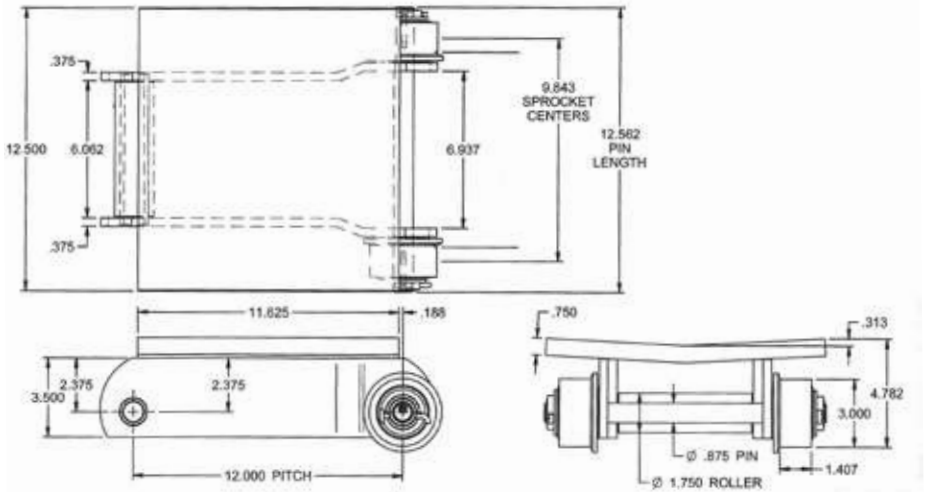
Other Significant Forestry Applications Where Tsubaki's Experience Can Work For You.		
Mill	Application	Tsubaki Solution
Paper Mill	Digester Conveyor	Stainless steel engineered class attachment incline conveyor
	Infloor Paper Roll Conveyor	Imperial and metric engineered class attachment conveyor
	Kraft Paper Pulp Press	Super series chain
OSB Mill	Rackdown Conveyor Before Press	Precision matched and tagged attachment chain in both ASME (ANSI) and British standard
	Indexer	
Hardwood Flooring Mill	End Groove Trimmer	Precision matched and tagged Lambda attachment
MDF Mill	MDF Cooler Chain	Engineered class attachment conveyor chain
	Fiberboard Press	Super series chain
Biomass	Ash Conveyor	Specially hardened cast or welded steel chain



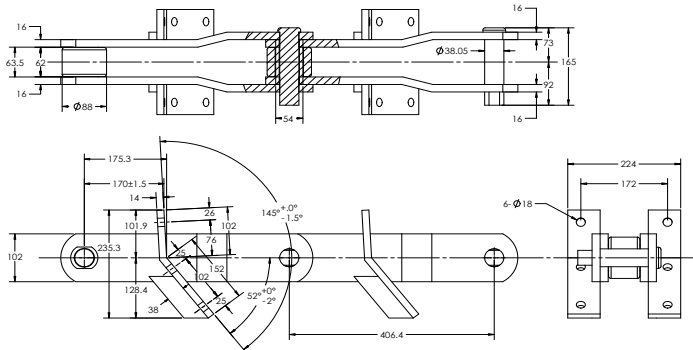
OTHER SIGNIFICANT FORESTRY APPLICATIONS

When expertise really matters

Paper Mill

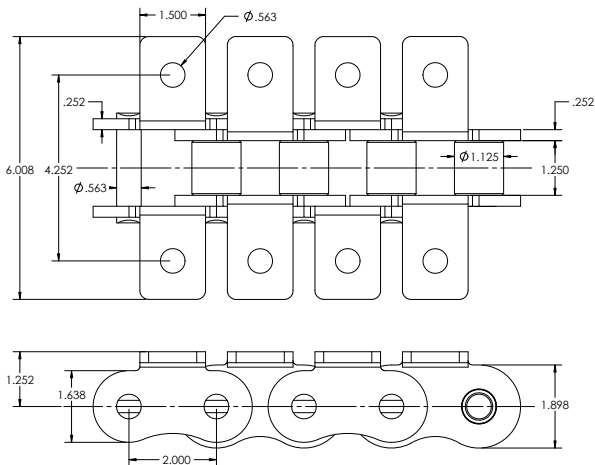


Infloor Paper Roll Conveyor



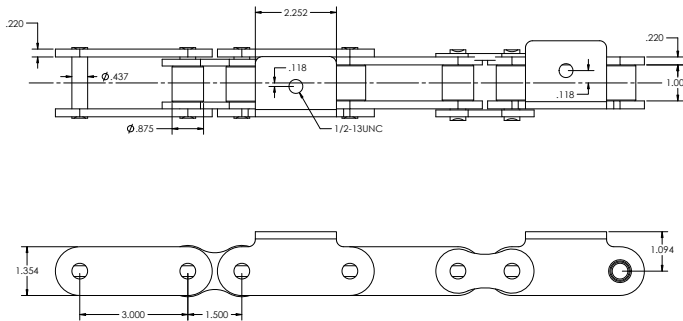
Digester Conveyor

OSB Mill



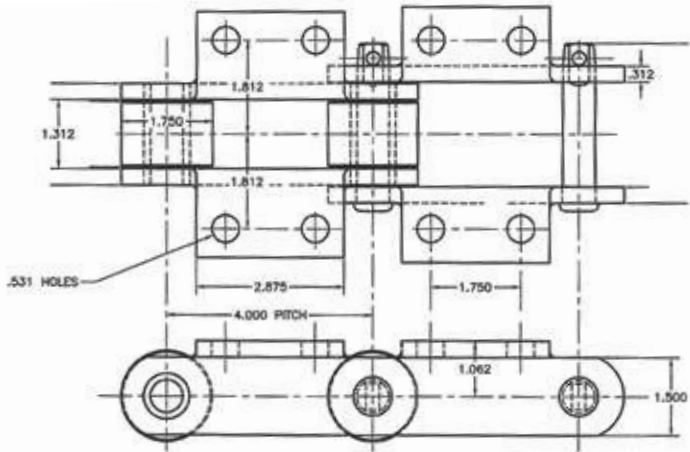
Rackdown Conveyor Before Press

Hardwood Flooring Mill



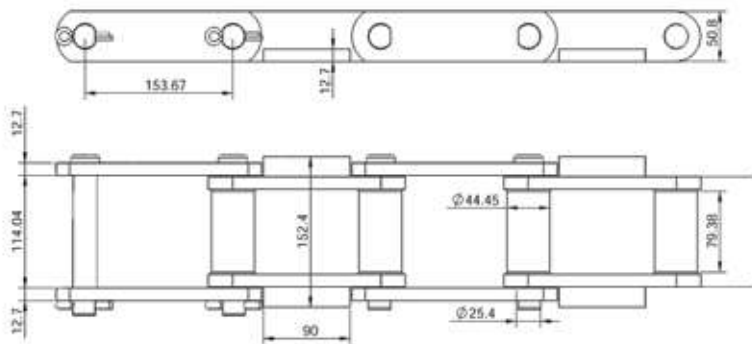
End Groove Trimmer

MDF Mill



MDF Cooler Chain

Biomass



Ash Conveyor

TSUBAKI SCAN AND PLAN

When expertise really matters



Get instant, secure access to stay on top of your critical applications

For 12 years Tsubaki has built a library of customer critical applications that fully documents cost saving solutions and replacement tracking details

Scan and Plan gets you instant access to:

- Distributor
- Distributor Contact Name
- Product Part Number / Description
- Quantity
- Anticipated Replacement Date
- Cost Savings ROI Date
- Photo Gallery
- Request for Technical Support Service Call
- Get a Quote
- Tsubaki Representative

KNOWLEDGE IS POWER!
At Tsubaki we want you to have the best possible information at your fingertips in order to make the best possible decision.



Scan and Plan is as EASY as 1, 2, 3...

Step 1: Contact your local Tsubaki representative to get access to our new QR code system

Step 2: Scan the QR label to get relevant information about your application

Step 3: Use the tool to proactively plan ahead and avoid an unplanned breakdown!

Contact us now to find out how you can get the "Advantage by Tsubaki".





At Tsubaki, we support what we sell.
This means that we are your partner in reducing downtime, lowering maintenance costs and increasing productivity. Not everyone can say that. Tsubaki's Technical Services staff is available for on-site inspections and will recommend the best solution for your application. We can also tailor our in-house seminar workshop to your individual needs.

Our services include the following:

- On-Site Services**
- Maintenance Seminar
 - Critical Application Survey
 - Application Troubleshooting
 - Failure and Wear Analysis

- In-House Services**
- Maintenance Seminar
 - Facility Tours
 - One Day Seminars
 - Failure and Wear Analysis
 - Sample Identification
 - Chain Selection
 - Application Troubleshooting

Our services include the following:

- Maintenance Seminars**
- Professional Audio-Video Presentation
 - Hands on Learning
 - Certificate of Attendance
 - Course Material Handout Package
 - Metal Chain Wear Scale
 - Group Picture

- Site Surveys**
- Two-Person Teams from Tsubaki
 - Chain Identification and Drawing
 - Wear Life Estimate
 - Identify Condition and Critical Points
 - Establish Regular Follow-Up Schedule
 - Report will be provided within 1 week of survey completion

- Application Troubleshooting and/or Wear Analysis**
- Tsubaki Technical Services Staff Site Visit
 - Initial Evaluation
 - Full report will be provided within 48 hours of completion of site visiting including selection verification

- Facility Tour and Full Day Seminars**
Sprocket Manufacturing Facility Tour:
- Learn the techniques and processes used in sprocket production
- Various Seminar Topics Available:**
- Maintenance
 - Troubleshooting
 - Basic and Advanced Product Selection
 - Chain Academy (Basic School)
(Meals / snacks / beverages may be provided)

- Failure and/or Wear Analysis**
- A full report will be provided within 48 hours and will include photos, failure / wear causes, effects and solutions
 - If more time (ie. over 48 hours) is required to complete the final report, we will provide the findings to date in a preliminary report

- Sample Identification**
- Chain number and sketch

- Chain Selection**
Simple Selection:
- A report that indicates selection process only.

- Intermediate Selection:**
- Detailed Report
 - Drawing of Selected Product
 - Calculations
 - Double Check Sign Off

- Advanced Selection (includes all of above plus:)**
- Expected Life Estimate
 - Maintenance Requirements and Schedule



FORESTRY GRADE IS YOUR EXPECTATION.

To us this means providing products that meet some of the most demanding applications in the industry. Period. Shock load, fatigue limit, abrasion, extreme speed, maintenance-free are all demanding conditions that Tsubaki products excel at. Nobody has the range of products that meet Forestry grade that Tsubaki does. Drive chains, conveyor chains with attachment, Sharp Top chains, drag and mill chains, full range of sprockets, several types of bushings including Power Locks are all the products that suit the needs of Forestry.

You can rely on Tsubaki's experience in field and technical support to provide solutions you need to increase production and reduce cost. On-site training, application survey and trouble shooting, wear and failure analysis with recommendation are key services we provide to the Forestry industry.

Documented cost savings are proof that our products and sales effort can work for you. All of this catalogue's print date proven cost savings in the Forestry alone totaled \$748,759.60 US.

Tsubaki quality means Forestry Grade proven!



Our services include the following:

Maintenance Seminars

- Professional Audio-Video Presentation
- Hands-on Learning
- Certificate of Attendance
- Course Material Handout Package
- Metal Chain Wear Scale
- Group Picture

Site Surveys

- Two-Person Teams from Tsubaki
- Chain Identification and Drawing
- Wear Life Estimate
- Identify Condition and Critical Points
- Establish Regular Follow-Up Schedule
- Report will be provided within 1 week of survey completion

Application Troubleshooting and/or Wear Analysis

- Tsubaki Technical Services Staff Site Visit
- Initial Evaluation
- Full report will be provided within 48 hours of completion of site visit, including selection verification

Facility Tour and Full Day Seminars

Sprocket Manufacturing Facility Tour:

- Learn the techniques and processes used in sprocket production

Various Seminar Topics Available:

- Maintenance
- Troubleshooting
- Basic and Advanced Product Selection
- Chain Academy (Basic School)
(Meals/snacks/beverages may be provided)

Failure and/or Wear Analysis

- A full report will be provided within 48 hours and will include photos, failure/wear causes, effect and solutions
- If more time (ie. over 48 hours) is required to complete the final report, we will provide the findings to date in a preliminary report

Sample Identification

- Chain number and sketch

Chain Selection

Simple Selection:

- A report that indicates selection process only

Intermediate Selection:

- Detailed Report
- Drawing of Selected Product
- Calculations
- Double Check Sign Off

Advanced Selection (includes all of above plus:)

- Expected Life Estimate
- Maintenance Requirements and Schedule



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CAT-TCLFOREST

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