## **Tsubaki in partnership with IADA**

# The Start of a **New Era**



100th Anniversary Model TSUBAKI G8 SERIES G



The rebirth of the drive chain, with improved quality and performance.

### Stockholding UK/Europe

Tsubaki stocks a wide range of standard power transmission products; many of which provide innovative solutions. We pride ourselves on customer service excellence and understand the importance of having stock available to fulfil our customer's requirements. The UK and European warehouses hold stock in excess of £18m and offer a wide product range of drive, conveyor, attachment chains & sprockets. We also supply power transmission component products such as cam clutches, torque limiters and couplings.



Tsubakimoto UK offices and distribution centre in Nottingham, UK

### About Tsubaki

Established in 1917, Tsubakimoto Chain Company is the world's premier manufacturer of power transmission products with strong market positions in premium quality ANSI & BS roller conveyor & engineering chains and associated power transmission components such as cam clutches, reducers & linear actuators.

At Tsubaki we know that customers want the best. Indeed, we take pride in our ability to deliver an extensive product lineup that satisfies these high expectations. We are also aware that each and every one of our customers has unique requirements. Our focus is on providing our customers around the world with concrete solutions by developing products to suit different countries, regions and business environments.

Tsubakimoto UK in Nottingham, serves the markets of the UK, Ireland and Iceland.



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### **Roller Chain Selection Guide**



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CHAIN DRIVES & HARDWARE

### TSUBAKI GT4 Winner: British Standard Roller Chain

TSUBAKI, the world's largest and most advanced manufacturer of chain has released its 4th generation BS/DIN standard roller chain. The latest generation chain, branded Tsubaki GT4 Winner hosts a number of manufacturing and material developments

Repeated testing and field data indicate that wear between the bearing parts is a primary limiting factor in overall chain life, particularly in externally lubricated chain types such as BS/DIN standard roller chain. TSUBAKI has committed significant amounts of research and development to making improvements in this area, to reduce wear and chain elongation over a longer period of time-even for standard drive roller chain.



### Four Key Features

### 1. Pre Lubrication Lube Groove (LG)

TSUBAKI's BS/DIN series roller chain utilise a unique production technique to manufacture a seamless bush with grooves incorporated on the inner surface. The lube-grooved (LG) bush holds oil at the point of contact where the chain needs it most, providing an internal reservoir for the upgraded pre-lube applied by Tsubaki. The result is a chain that lasts longer with lower maintenance costs over the lifetime of the chain.

The Lube Groove Brush is available in BS sizes RS16B through RS24B perfectly sized for the most demanding applications.

### 2. Seamless Bush > Perfectly Cylindrical

The new Tsubaki BS/DIN series chain has a seamless bush with a very precise cylindrical profile and surface finish resulting in better surface contact between the pin and bush along with improved lubricant retention.

### 3. Easy dis-assembly > Centre Sink Rivet

With Tsubaki's design of rivet head the chain is easily dis-assembled with an additional benefit being that in the event of the chain being overloaded, the markings on the rivet head will identify pin rotation.

### 4. Increased Transmission Capacity > Ring Coining

The Ring Coined connecting link allows the chain to be specified up to its full kW rating. The precision and strength achieved on these components is far beyond that of competitor's offerings. The typical standard slip-fit connecting link is usually much weaker than the other links. Tsubaki's Ring Coin technology has overcome that.

### **CO<sup>2</sup> Reduction**

Tsubaki takes its environmental responsibility very seriously in its state-of-the-art production facilities. The new BS/DIN series chain contributes significantly to reducing CO<sup>2</sup> emissions due to the greatly extended replacement frequency.

### **Roller Chain Structure**







The Engineer's ToolKit

### **BS GT4 Winner Standard Roller Chain**



#### Dimensions in mm

CHAIN DRIVES & HARDWARE

						r							Min.	Min.		
													Tensile	Tensile	Av. Tensile	
													Strength	Strength	Strength	
			Roller	Inner								Transverse	acc. to	acc. to	acc. to	Approx.
TSUBAKI	Pit	tch	Diameter	Width	Diameter	Length	Length	Length	Thickness	Thickness	Height	Pitch	ISO 606	Tsubaki	Tsubaki	Mass
Chain No.		р	d1	b1	d2	Li	L2	L	T	t	H (max)	pt	kN	kN	kN	kg/m
RSO5B-1						3.80	4.70	-				-	4.4	5.0	5.8	0.18
RS05B-2	8.00	(0.315")	5.00	3.00	2.30	6.65	7.52	-	0.75	0.75	7.10	5.64	7.8	7.8	8.9	0.35
RSO5B-3						9.45	10.34	-	]			5.64	11.1	11.2	12.8	0.53
RF06B-1						6.10	7.70	14.20				-	8.9	9.0	9.9	0.39
RF06B-2	9.525	(3/8")	6.35	5.72	3.27	11.43	12.57	-	1.30	1.00	8.20	10.24	16.9	17.0	18.7	0.75
RF06B-3						16.90	17.50	-	1			10.24	24.9	24.9	27.4	1.11
RS08B-1						8.40	10.00	18.40	[			-	17.8	19.0	20.9	0.70
RS08B-2	12.70	(1/2")	8.51	7.75	4.45	15.30	16.90	33.60	1.60	1.60	12.00	13.92	31.1	32.0	35.2	1.35
RSO8B-3	1					22.25	23.85	47.60	1			13.92	44.5	47.5	52.3	2.00
RS10B-1		•••••••				9.55	11.25	21.10				-	22.2	23.0	25.3	0.95
RS10B-2	15.875	(5/8")	10.16	9.65	5.08	17.85	19.55	39.40	1.50	1.50	14.70	16.59	44.5	44.5	49.0	1.85
RS10B-3						26.15	27.85	56.10	1			16.59	66.6	66.8	73.5	2.80
RS12B-1		••••••				11.10	13.00	24.80				-	28.9	31.0	34.1	1.25
RS12B-2	19.05	(3/4")	12.07	11.68	5.72	20.85	22.75	46.30	1.80	1.80	16.10	19.46	57.8	61.0	67.1	2.50
RS12B-3						30.60	32.50	66.00	1			19.46	86.7	92.0	101.0	3.80
RS16B-1		•••••••				17.75	19.95	38.90				-	60.0	70.0	77.0	2.70
RS16B-2	25.40	(1")	15.88	17.02	8.28	33.55	35.75	73.80	4.00	3.20	21.00	31.88	106.0	128.0	141.0	5.40
RS16B-3		ζ, γ				49.50	51.70	105.90	1			31.88	160.0	192.0	211.0	8.00
RS20B-1		••••••				19.90	23.10	46.95				-	95.0	98.1	108.0	3.85
RS20B-2	31.75	(1 1/4")	19.05	19.56	10.19	38.25	41.45	84.85	4.40	3.40	26.00	36.45	170.0	197.0	217.0	7.65
RS20B-3	1					56.50	59.70	121.35	1			36.45	250.0	295.0	325.0	11.45
RS24B-1		••••••				26.65	31.85	62.00	6.00	5.60	33.40	-	160.0	167.0	184.0	7.45
RS24B-H-1	00.10	(1.1.(0)))	05.40	05.40	14.40	29.30	34.20	-	7.50	6.00	36.20	-	-	234.0	270.0	8.20
RS24B-2	38.10	(1 1/2")	25.40	25.40	14.63	50.80	56.00	112.95	4 00	5 (0	00.40	48.36	280.0	335.0	369.0	14.65
RS24B-3						75.10	80.20	161.35	6.00	5.60	33.40	48.36	425.0	500.0	550.0	21.75
RS28B-1		••••••				32.45	37.45	74.50				-	200.0	200.0	220.0	9.45
RS28B-2	44.45	(1 3/4")	27.94	30.99	15.90	62.15	67.15	136.85	7.50	6.30	36.40	59.56	360.0	374.0	411.0	18.80
RS28B-3	1					91.95	96.95	196.45	1			59.56	530.0	560.0	616.0	28.20
RS32B-1		••••••				32.10	37.70	73.50				-	250.0	255.0	281.0	10.25
RS32B-2	50.80	(2")	29.21	30.99	17.81	61.25	66.85	135.25	7.00	6.30	42.20	58.55	450.0	485.0	534.0	21.10
RS32B-3		( )				90.50	96.10	193.80	1			58.55	670.0	729.0	802.0	29.90
RS40B-1		••••••				39.25	45.05	88.85				-	355.0	373.0	410.0	16.35
RS40B-2	63.50	(2 1/2")	39.37	38.10	22.89	75.40	81.20	163.55	8.50	8.00	52.90	72.29	630.0	716.0	788.0	32.00
RS40B-3		,				111.50	117.30	235.85	1			72.29	950.0	1080.0	1190.0	47.75
RS48B-1						49.30	58.80	117.70				-	560.0	565.0	618.0	25.00
RS48B-2	76.20	(3")	48.26	45.72	29.23	95.00	104.40	209.00	12.10	10.00	63.80	91.21	1000.0	1000.0	1150.0	50.00
RS48B-3	1	. ,				140.60	150.00	300.20	1			91.21	1500.0	1520.0	1750.0	75.00

#### Note:

1. Connecting links are clip type for sizes up to RS16B, and cotter type for sizes RS20B to RS48B.

2. RF06B chain has flat-shaped link plates.

3. Intermediate plate of multi strand RF06B-2 and RS08B-2 chain is a solid plate.

4. Center sink riveting is applied to RS08B-1 to RS16B-1 single strand chain.

5. Double stake riveting is applied to all other sizes including multi-strand chain.

6. When a single pitch offset link is used, please calculate a 35% reduction of the fatigue strength.

7. RS24B-H-1 chain is a reinforced RS24B-1 chain.



### TSUBAKI G8: ANSI Standard Roller Chain

# TSUBAKI's 8th model upgrade, celebrating 100 years of quality. Pursuing the ultimate in quality, TSUBAKI has created the world's highest standard of roller chain.

### All ANSI Chains Are Not Created Equal

ANSI defines minimum threshold standards: acceptable, but they won't improve your bottom line. TSUBAKI ANSI G8 Chains set the bar higher with design innovations that deliver solid results!

### Advantages

TSUBAKI has enhanced the ANSI G8 with the following advantages:

### Solid Lube Groove Bush - Our Latest Innovation

Unlike curled bush, TSUBAKI SOLID Lube Groove Bush does not have a split. This means that oil cannot leak from the bearing area as a result of that type of manufacturing process. Additional to that innovation TSUBAKI developed a unique process to add grooves to the inner surface of the solid bush. This lube groove process ensures longer and better lubrication which results in an extended chain life.

The Lube Groove Bush is available in ANSI sizes RS80 through RS140, perfectly sized for the most demanding applications.



#### **Save Operating Costs and Reduce Downtime**

Normally, ANSI chains are removed or replaced due to elongation caused by wear in the pin-bush joint. The patented Lube Groove retains lubricant right where it's needed: in the pin-bush joint. In many applications you'll notice a significant difference in maintenance, operating, and replacement costs due to the increased reliability of the ANSI G8 chains.

### Increased kW Rating

Transmission capacity has been increased by applying the TSUBAKI Ring Coining process on the connecting link plate.

For easy assembling the pin and link plate of a connecting link are slip fit. In general, this type of connecting link has a 20% lower fatigue strength than the chain itself. However, TSUBAKI developed a special process to eliminate that loss of Fatigue Strength and still satisfy the customers demand for easy assembly: the Ring Coining process. By applying the Ring Coining process, TSUBAKI generates a cold deformation around the pin hole of the connecting link plate. This results in residual stress around the pin hole and thereby adds strength. By using this process transmission capacity is increased to 100% of that of the base chain.

### **Constant Quality Level**

In pursuit of outstanding quality, every TSUBAKI chain is made of a special steel alloy developed by the TSUBAKI Engineering Department.

Besides that, TSUBAKI produces the ANSI G8 under highly controlled conditions in its advanced heat treatment facilities. This, in combination with the TSUBAKI fatigue strength confirmation tests, ensures that our customers can always rely on a constant level of TSUBAKI quality.

### **Customised Pre-Lubrication Service**

Proper lubrication is the key to extend the life and improve the performance of a chain. In order to get the best performance in general applications (-10 to +60°C), all ANSI G8 drive chains are pre-lubricated.

For special applications, TSUBAKI can provide chains which are pre-lubricated with a special lubricant on customer demand:

- High temperature
- Low temperature
- Food safe
- Outdoor exposure
- Dusty environment

Please consult TSUBAKI for more detailed information





The Engineer's ToolKit

### **ANSI G8 Standard Roller Chain**





						Р	in		Link	Plate				
												Min. lensile	Min. lensile	
			ъш								-	Strength	Strength	
TOUDAN		1 l.	Roller	Inner	Diamatan	Level	Level	Level	Talaan	112510	Iransverse Diud	acc. to	acc. to	Approx.
ISUBAKI	r	Ifch	Diameter	vviatn	Diameter	Length	Length	Length	TICKNESS		Pitch	AINSI	ISUDAKI	IVIOSS
Chain No.		р	dl	bl	d2	2.90	L2 4.50	L		H (max)	pt	kIN 2.5	kIN 4.12	kg/m
R323-1	6 35	(1/4")	3 30	3 1 9	2 31	3.6U 4.05	4.50	-	0.75	5.94	- 6 40	3.5	4.1Z	0.14
RJZJ-Z	0.55	(1/4)	5.50	5.10	2.01	10.75	10.05	-	0.75	5.04	6.40	10.5	12 4	0.27
R\$35-1		•••••••••••••••••••••••••••••••••••••••				5.85	6.85	13.50			- 0.40	7.9	9.81	0.33
R\$35-2						10.90	11 90	24.50			10 10	15.8	19.6	0.69
RS35-3	9.525	(3/8″)	5.08	4.78	3.59	16.00	16.90	34.60	1.25	9.00	10.10	23.7	29.4	1.05
RS35-4						21.05	21.95	44.70			10.10	-	39.2	1.41
RS37-1	12.70	(1/2")	7.80	3.40	3.63	5.10	5.90	12.45	1.00	9.80	-	-	8.14	0.29
RS38-1	12.70	(1/2")	7.80	4.80	3.63	6.00	7.10	14.10	1.10	9.80	-	-	8.14	0.35
RS41-1	12.70	(1/2")	7.77	6.38	3.59	6.75	7.95	15.10	1.25	9.80	-	6.7	10.3	0.41
RS40-1						8.25	9.95	18.20			-	13.9	17.7	0.64
RS40-2	12 70	(1/2")	7 02	7 95	3 07	15.45	17.15	33.50	1.50	12.00	14.40	27.8	35.3	1.27
RS40-3	12.70	(1/2)	1.72	1.75	0.77	22.65	24.15	47.90	1.50	12.00	14.40	41.7	53.0	1.90
RS40-4						29.90	31.30	62.30			14.40	-	70.6	2.53
RS50-1						10.30	11.90	22.60			-	21.8	28.4	1.04
RS50-2	15.875	(5/8")	10.16	9.53	5.09	19.35	21.15	41.80	2.00	15.00	18.10	43.6	56.9	2.07
R550-3		( )				28.40	30.20	59.90			18.10	65.4	85.3	3.09
K55U-4		••••				37.45	39.25	/8.10			18.10	-	114.0	4.11
RSOU-1						12.00	14.75	20.20				31.3 40.4	40.Z	2.04
PS40 3	19.05	(3/4")	11.91	12.70	5.96	24.25	20.23	75.50	2.40	18.10	22.00	02.0	121.0	1.51
RS60-4						47.05	49.55	98.30			22.00	75.7	161.0	6.04
RS80-1		•••••••••••••••••••••••••••••••••••••••				16 25	19 25	36.60			-	55.6	71.6	2.66
RS80-2						30.90	33.90	67.50			29.30	111.2	143.0	5.27
RS80-3	25.40	(1″)	15.88	15.88	7.94	45.60	48.50	96.90	3.20	24.10	29.30	166.8	215.0	7.89
RS80-4						60.25	63.25	126.30			29.30	-	286.0	10.50
RS100-1						19.75	22.85	43.70			-	87.0	107.0	3.99
RS100-2	21.75	(1 1 / 4 ")	10.05	10.05	0.54	37.70	40.80	81.50	4.00	20.10	35.80	174.0	214.0	7.85
RS100-3	31.75	(1 1/4 )	19.05	19.05	9.34	55.65	58.75	117.30	4.00	30.10	35.80	261.0	321.0	11.77
RS100-4						73.55	76.65	153.10			35.80	-	428.0	15.70
RS120-1						24.90	28.90	55.00			-	125.0	148.0	5.93
RS120-2	38.10	(1 1/2'')	22.23	25.40	11.11	47.60	51.60	103.20	4.80	36.20	45.40	250.0	296.0	11.70
RS120-3		( , ,				70.40	74.40	148.60			45.40	375.0	444.0	17.53
RS120-4		••••				93.10	97.10	194.00			45.40	-	592.0	23.36
RS14U-1	11 15	(1.3/4")	25.40	25.40	12 71	20.90	56 15	59.50 112.30	5.40	12.20	- 48.00	340.0	193.U 386.0	1/.49
R5140-2	44.45	(13/4)	23.40	23.40	12./1	75.05	00.75	141.20	5.00	42.20	40.90	540.0	500.0	14.00
RS140-3		••••				31.85	36.85	70.20			40.90	223.0	255.0	10.10
R\$160-2	50.80	(2")	28 58	31.75	14 29	61 15	66 15	132.20	6.40	48 20	58 50	446.0	510.0	20.04
RS160-3	00.00	(2)	20.00	01.70	14.27	90.45	95.45	190.70	0.40	40.20	58.50	669.0	765.0	30.02
RS180-1						35.65	42.45	80.60			-	281.0	336.0	13.45
RS180-2	57.15	(2 1/4")	35.71	35.72	17.46	68.75	75.35	151.10	7.15	54.20	65.80	562.0	673.0	26.52
RS180-3	1					101.70	108.50	216.90	1		65.80	843.0	1010.0	38.22
RS200-1						39.00	44.80	87.30			-	347.0	427.0	16.49
RS200-2	63.50	(2 1/2")	39.68	38.10	19.85	74.85	80.65	161.20	8.00	60.30	71.60	694.0	853.0	32.63
RS200-3						110.75	116.45	233.00			71.60	1041.0	1280.0	49.02
RS240-1	76.20	(3")	47.63	47.63	23.81	47.90	55.50	106.70	9.50	72 40		500.0	623.0	24.50
RS240-2	, 0.20	(0)	17.00	17.00	20.01	91.90	99.40	198.40	7.00	12.40	87.80	1000.0	1250.0	48.10

Note:

 $\ensuremath{\mathsf{1.RS25}}$  - RS35 are rollerless chain (only bush). The figure shown is the bush diameter.

2. Connecting links are clip type for sizes up to RS60, and cotter type for sizes RS80 to RS200. RS240 connecting links are spring pin type.

3. When a single pitch offset link is used, please calculate a 35% reduction of the fatigue strength.



### TSUBAKI Lambda: Lube Free Roller Chain

TSUBAKI's Lambda Chains were the first in the industry to use a special oil impregnated bush. Since their launch in 1988, they have been adopted for diverse industries and applications, such as food, beverage, paper, wood and packaging. TSUBAKI has a wide line-up of lube-free, long life products that help customers reduce costs.

### **Technical Evolution**

As a pioneer in the lube-free chain market, TSUBAKI will reveal some of the key elements behind Lambda's outstanding performance:

#### Sintered Oil Impregnated Bush

The microscopic pores in the seamless sintered bush are vacuum filled with high performance NSF-H1 food grade lubricant, which provides a 30% increase in wear-life performance.

\* Average increase compared to the previous generation of Lambda chain.

#### **Special Coated Pin**

The special coating on the pin surface enhances the long term internal lubrication.

#### **Centre Sink Rivet**

The unique centre sink pin design offers easy chain disassembly and the markings on the rivet head will identify pin rotation. \* BS only: RS08B-1 to RS16B-1

#### **Ring Coin**

The Ring Coin connecting link ensures that the chain can be specified up to its full chain capacity.

### **30% INCREASED WEAR LIFE PERFORMANCE**



#### Advantages

TSUBAKI has enhanced the Lambda with the following advantages:

#### **Save Maintenance Costs**

No expensive labour costs as it is not required to manually lubricate this chain.



### Save Purchasing Costs

Lower frequency of purchasing due to the high quality of the chain and its long economic life. No purchasing of lubricants or lubrication systems necessary.

#### **Higher Productivity**

No unforeseen downtime due to chain breakdown. Less time required for maintenance and therefore more time for production.

#### **Environmental Friendly**

Applications run clean thus reducing the risk of contaminating products, machines, floor etc.

#### Inter-Changeability

#### BS Chain:

BS Lambda Chains are fully interchangeable with standard BS roller chains.

#### ANSI Chain:

Only simplex ANSI Lambda is interchangeable with standard ANSI roller chain. However, as the pins are longer than those of the standard ANSI roller chain, please make sure that there is no interference with the machine



The Engineer's ToolKit

### Lambda Lube Free Roller Chain



### **BS Lambda Chain**

Dimensions in mm

						Pi	in			Link Plate				
TSUBAKI	Pit	tch	Roller Diameter	Inner Width	Diameter	Length	Length	Length	Thickness	Thickness	Height	Transverse Pitch	Min. Tensile Strength acc. to ISO 606	Approx. Mass
Chain No.		р	dı	bı	d2	LI	L2	L	Т	t	H (max)	pt	kN	kg/m
RF06B-LM-1 RF06B-LM-2	9.525	(3/8")	6.35	5.72	3.28	6.10 11.20	7.70 12.80	15.10 25.90	1.30	1.00	8.20	- 10.24	8.9 16.9	0.39 0.75
RS08B-LM-1 RS08B-LM-2	12.70	(1/2")	8.51	7.75	4.45	8.40 15.30	10.00 16.90	18.60 34.50	1.60	1.60	12.00	- 13.92	17.8 31.1	0.70 1.35
RS10B-LM-1 RS10B-LM-2	15.875	(5/8")	10.16	9.65	5.08	9.55 17.85	11.25 19.55	20.80 39.40	1.50	1.50	14.70	- 16.59	22.2 44.5	0.95 1.85
RS12B-LM-1 RS12B-LM-2	19.05	(3/4")	12.07	11.68	5.72	11.10 20.85	13.00 22.75	24.40 45.90	1.80	1.80	16.10	- 19.46	28.9 57.8	1.25 2.50
RS16B-LM-1 RS16B-LM-2	25.40	(1″)	15.88	17.02	8.28	17.75 33.55	19.95 35.75	39.30 73.40	4.00	3.20	21.00	- 31.88	60.0 106.0	2.70 5.40
RS20B-LM-1 RS20B-LM-2	31.75	(1 1/4")	19.05	19.56	10.19	19.90 38.25	23.10 41.45	46.60 84.60	4.40	3.40	26.40	- 36.45	95.0 170.0	3.85 7.65
RS24B-LM-1 RS24B-LM-2	38.10	(1 1/2")	25.40	25.40	14.63	26.65 50.80	31.85 56.00	61.70 112.80	6.00	5.60	33.40	- 48.36	160.0 280.0	7.45 14.65

### **ANSI Drive Series Lambda Chain**

												D	imensions	s in mm
						Pi	'n			Link Plate				
													Min. Tensile Strength	
			Roller									Transverse	acc. to	Approx.
TSUBAKI	P	itch	Diameter	Inner Width	Diameter	Length	Length	Length	Thickness	Thickness	Height	Pitch	Tsubaki	Mass
Chain No.		р	d1	b1	d2	LI	L2	L	Т	t	H (max)	pt	kN	kg/m
40-LMD-1	12 70	(1/2")	7 05	7.55	2.07	8.75	10.45	20.00	2.00	1.50	12.00	-	17.7	0.70
40-LMD-2	12.70	(1/2)	7.75	7.55	3.77	16.50	18.10	-	2.00	1.50	12.00	15.40	35.4	1.40
50-LMD-1	15 075	15 10/0	10.17	0.07	E 00	10.75	12.45	24.00	0.40	0.00	15.00	-	28.4	1.11
50-LMD-2	15.8/5	(5/8)	10.10	9.20	5.09	20.20	22.00	-	2.40	2.00	15.00	19.00	56.8	2.20
60-LMD-1	10.05	10 / 4//	11.01	10.00	5.07	13.75	15.70	32.00	2.00	0.40	10.10	-	40.2	1.72
60-LMD-2	19.05	(3/4)	11.91	12.28	5.90	26.05	28.05	-	3.20	2.40	18.10	24.52	80.4	3.40
80-LMD-1	05.40	(1/0)	15.00	15.40	7.04	17.15	20.25	39.90	4.00	2.00	04.10	-	71.6	2.77
80-LMD-2	25.40	(1)	15.88	15.48	7.94	32.70	35.90	-	4.00	3.20	24.10	31.10	143.0	5.50
100-LMD-1	21.75	(1 1 ( 4//)	10.05	10.70	0.54	20.65	23.85	47.50	4.00	4.00	20.10	-	107.0	4.30
100-LMD-2	31./5	(1 1/4")	19.05	18.70	9.54	39.50	42.50	-	4.80	4.00	30.10	37.60	214.0	8.60
120-LMD-1	38.10	(1 1/2")	22.23	24.75	11.11	25.75	29.95	59.00	5.60	4.80	36.20	-	148.0	6.40
140-LMD-1	44.45	(1 3/4")	25.40	24.75	12.71	27.70	32.20	63.70	6.40	5.60	42.20	-	193.0	8.10

Note: 1. Connecting links are clip type for sizes up to RS16B-LM, and upto RS60-LMD, and cotter type for sizes RS20B-LM to RS24B-LM and RS80-LMD to RS140-LMD. 2. RF06B-LM chain has flat shaped link plates. 3. Intermediate plate of RF06B-LM-2 and RS08B-LM-2 is a solid plate. 4. Centre sink riveting is applied for RS08B-LM-1 to RS16B-LM-1. Double stake riveting is applied to all other sizes including multi-strand chain. 5. When a single pitch offset link is used, please calculate a 35% reduction of the fatigue strength. 6. Offset links for Lambda double strand chains are not available. 7. ANSI drive series Lammbda has non standard dimensions, see chart above.



CHAIN DRIVES & HARDWARE

### **TSUBAKI Neptune: Corrosion Protected Roller Chain**

Tsubaki proudly presents the worldwide release of surface treated anti corrosion Neptune chain series, our solution for applications exposed to water, seawater, chemicals, and high humidity conditions. Neptune Chain has superior corrosion and chemical resistant performance, developed for Tsubaki's centennial anniversary. The first release in Tsubaki's 100th Anniversary model G8 (Generation 8) series.

### **No Strength Reduction**

A special treatment process is used that does not affect chain strength (part hardness). Neptune<sup>™</sup> chains have the same tensile strength and allowable load as our standard roller chains.

### **Lower Environmental Load**

Neptune<sup>™</sup> chains use no harmful hexavalent chromium in their corrosion resistant surface treatment, nor any other hazardous substances such as lead, cadmium, mercury, or arsenic. Neptune™ chains are RoHS compliant.

### Environment

Manufacturing chain with a substantially larger wear-life serves the environment; less frequent chain replacement results in reduced consumption of raw materials and energy and reduces the CO2 emission. Neptune<sup>™</sup> chain is a true eco-friendly product

### New Surface Treatment Structure

The Neptune<sup>™</sup> surface treatment combines Tsubaki's uniquely developed special coating and special resin coating for superb corrosion (rust) and chemical resistance.



### Features:

- High Corrosion resistance
- Excellent chemical resistance
- Same strength as carbon steel chain
- Less environmental load





\*In -house test comparison

Sodium hydrochlorite and sodium hydroxide are used in the food industry to clean and disinfect. Both are alkaline aqueous solution.



### **Neptune Chain for Corrosive Environments**



### **BS Neptune Chain**

														Dimensic	ons in mm
			Roller	Inner		Pi	in			Link Plate		Transverse	Min. Tensile Strength	Min. Tensile Strength	Approx
TSUBAKI	Pi	itch	Diameter	Width	Diameter	Length	Length	Length	Thickness	Thickness	Height	Pitch	ISO 606	Tsubaki	Mass
Chain No.		p	d1	b1	d2	Lĩ	L2	Ľ	Т	t	H (max)	pt	kN	kN	kg/m
RF06B-NEP-1 RF06B-NEP-2	9.525	(3/8")	6.35	5.72	3.27	6.10 11.20	7.70 12.80	15.10 25.90	1.30	1.00	8.20	- 10.24	8.9 16.9	9.0 17.0	0.39 0.75
RSO8B-NEP-1 RSO8B-NEP-2	12.70	(1/2")	8.51	7.75	4.45	8.40 15.30	10.00 16.90	18.60 34.50	1.60	1.60	11.80	- 13.92	17.8 31.1	19.0 32.0	0.70 1.35
RS10B-NEP-1 RS10B-NEP-2	15.875	(5/8")	10.16	9.65	5.08	9.55 17.85	11.25 19.55	20.80 39.40	1.50	1.50	14.70	- 16.59	22.2 44.5	23.0 44.5	0.95 1.85
RS12B-NEP-1 RS12B-NEP-2	19.05	(3/4")	12.07	11.68	5.72	11.10 20.85	13.00 22.75	24.40 45.90	1.80	1.80	16.10	- 19.46	28.9 57.8	31.0 61.0	1.25 2.50
RS16B-NEP-1 RS16B-NEP-2	25.40	(1″)	15.88	17.02	8.28	17.75 33.55	19.95 35.75	43.30 75.20	4.00	3.20	21.00	- 31.88	60.0 106.0	70.0 128.0	2.70 5.40
RS20B-NEP-1 RS20B-NEP-2	31.75	(1 1/4")	19.05	19.56	10.19	19.90 38.25	23.10 41.45	48.20 84.60	4.40	3.40	26.00	- 36.45	95.0 170.0	98.1 197.0	3.85 7.65
RS24B-NEP-1	38.10	(1 1/2")	25.40	25.40	14.63	26.65	31.85	64.30	6.00	5.60	33.40	-	160.0	167.0	7.45

Note:

1. Connecting links are clip type for sizes up to R\$16B-NEP, and cotter type for sizes R\$20B-NEP to R\$24B-NEP.

2. RF06B-NEP chain has flat-shaped link plates.

3. Intermediate plate of multi strand RF06B-NEP-2 and RS08B-NEP-2 chain is a solid plate.

4. Center sink riveting is applied to RS08B-NEP-1 to RS16B-NEP-1 single strand chain.

5. Double stake riveting is applied to all other sizes including multi-strand chain.

6. When a single pitch offset link is used, please calculate a 40% reduction of the fatigue strength.

### **ANSI Neptune Chain**

<b>—</b> ·			
Dime	nsions	ın	mm

						Р	in		Link	Plate			
											Min. Tensile	Min. Tensile Strength	
TSUBAKI	Pi	tch	Diameter	Width	Diameter	Length	Length	Length	Thickness	Height	acc. to ANSI	acc. to Tsubaki	Approx. Mass
Chain No.		р	dı	b1	d2	Lĩ	L2	Ĺ	T	H (max)	kN	kN	kg/m
RS35-NEP-1	9.525	(3/8")	5.08	4.78	3.59	5.85	6.85	13.50	1.25	9.00	7.9	9.81	0.33
RS40-NEP-1	12.70	(1/2")	7.92	7.95	3.97	8.25	9.95	18.20	1.50	12.00	13.9	17.7	0.64
RS50-NEP-1	15.875	(5/8″)	10.16	9.53	5.09	10.30	11.90	22.60	2.00	15.00	21.8	28.4	1.04
RS60-NEP-1	19.05	(3/4")	11.91	12.70	5.96	12.85	14.75	28.20	2.40	18.10	31.3	40.2	1.53
RS80-NEP-1	25.40	(1″)	15.88	15.88	7.94	16.25	19.25	38.20	3.20	24.10	55.6	71.6	2.66

#### Note:

1. Connecting links are clip type for sizes RS35-NEP to RS60-NEP, and cotter type for size RS80-NEP.

2. When a single pitch offset link is used, please calculate a 35% reduction of the fatigue strength.

CHAIN DRIVES & HARDWARE



### TSUBAKI PC: Corrosion Resistant Poly-Steel Chain

Plastic Combination Chain (PC) uses stainless steel outer link plates and pins with resilient engineering plastic inner links to reduce weight and improve wear life, without lubrication. Tsubaki is the pioneer of this chain technology. PC Chain is resilient to water and detergents as well as food ingredients such as oils and lactic acid. This product can provide an ideal solution for avoiding corrosion in a variety of machinery applications.

### **PC Engineering Plastic Combination Chain**

The pins and pin link plates of these chains are made of SUS304 equivalent (spring clips SUS301). Engineering plastic (white) is used for the inner link. This combination makes it a lube-free, low noise (5 dB lower than standard roller chain) and lightweight chain (50% lighter than standard roller chain). Working temperature range: -20°C to +80°C.



### PC Chain Dimensions



### **BS PC Chain**

						Pin			Link Plate			
											Max.	
											Allowable	
											Load	
			Bush	Inner							acc. to	Approx.
TSUBAKI	Pit	ch	Diameter	Width	Diameter	Length	Length	Thickness	Thickness	Height	Tsubaki	Mass
Chain No.	F	)	d1	b1	d2	Lı	L2	Т	t	H (max)	kN	kg/m
RF06B-PC-1	9.525	(3/8")	6.35	5.72	3.28	6.50	7.25	1.30	1.00	8.20	0.20	0.23
RS08B-PC-1	12.70	(1/2")	8.51	7.75	4.45	8.35	10.05	1.60	1.50	12.00	0.46	0.40
RS10B-PC-1	15.875	(5/8")	10.16	9.65	5.08	9.55	11.25	1.50	1.50	14.70	0.53	0.51
RS12B-PC-1	19.05	(3/4")	12.07	11.68	5.72	11.10	13.00	1.80	1.80	16.10	0.70	0.67

#### Note:

1. Make sure to check the chain load again when replacing Stainless Steel Chain with PC Chain.

2. Offset links are not available.

3. Use a chain tensioner with an idler sprocket to adjust chain tension.

4. Guide rails should support the underside of the inner links.

5. Also available in ANSI standard. Please contact Tsubaki for details.



Dimensions in mm

**CHAIN DRIVES** & HARDWARE

### TSUBAKI: Stainless Steel Corrosion Resistant Chain

Whether your operation requires a sanitary environment, is exposed to corrosive chemicals, is heated to extreme temperatures, runs through a freezer, is exposed to the outdoors or is affected by excessive moisture: Tsubaki Stainless Steel chains will outlast your current chains and contribute to a cost-effective application.

### SS Stainless Steel Chain

All basic components of this chain are made of Stainless Steel SUS304 equivalent (except the spring clips, which are made of SUS301) This chain can be used in special environments such as underwater, acidic and alkaline applications. It can also be used in high and low temperatures (-20°C to +400°C) SUS304 equivalent is only marginally magnetic, which is the result of the cold-forging process.

### **SS** Chain Dimensions



### **BS SS Chain**

					1	. 8	io			Link Plate				-
TSUBAKI	Pr	nch	Koffer Diameter	inner Width	Diameter	Length	Longth	Length	Thickness	Thickness	Height	Transverse Pitch	Max. Allowable Load acc. to Turboli	Арриск. Мана
Chain No.	1	μ .	di	bi	d2	ti	U.	t	T	1 I.	H (man)	et	- kN	kg/m
RF068-SS-1	10.000	100.000	1.446	1. 1. 1.	14 (14)	6.50	7.25	15.45	1.20	1.00	0.00		0.27	0.39
RF068-55-2	9.525	(268.)	6.33	5.72	3.78	11.60	12.30	25.85	1.30	1.00	6.20	10.24	0.53	0.75
RS088-55-1			1.00			8,35	10.05	20.05			100 page 100		0.48	0.70
RS088-55-2	12.70	(1/2")	8.51	7.75	4,45	15,30	17.00	34.60	1.50	1.50	11.80	13.92	0.96	1.35
RS088-55-3						22.25	23.95	48.60				13.92	1.44	2.00
R\$108-55-1			1125			9.55	11.25	22.90					0.66	0.95
R5108-55-2	15.875	(5/87)	10,16	9.65	5.08	17.85	19.55	39.40	1.50	1.50	14.70	16.59	1.32	1.85
R\$108-55-3						26.20	27.80	56.00				16.59	1.97	2.80
R\$128-55-1		1021 - 111C				11.10	13.00	26.70		C	* - 11 11 -	+	0.87	1.25
R\$128-55-2	19.05	(3/4*)	12.07	11.68	5.72	20.90	22.70	46.10	1.80	1.80	16.10	19.46	1.74	2.50
R\$12B-5S-3						30.65	32.55	65.60				19.46	2.61	3.80
R5168-55-1	25.40	1100	10.00	1.7.00	0.00	17.75	19.95	43.70	100	a 444	01.00	+	2.06	2.70
R5168-55-2	25.40	10.1	10,88	17.02	B.28	33.55	35.75	75.50	4.00	3.20	21.00	31.88	4.12	5.40
R\$208-55-1	31.75	(11/47)	19.05	19.56	10.19	20.10	23.10	48.40	4,50	3.50	26.00		2.90	3.85

#### Note:

1. Connecting links are clip type for sizes up to RS16B-SS, and caller type for sizes RS12B-SS to RS20B-SS.

2. RF06B-SS chain has flat shaped link plates.

3. Centre sink pins are not available. Double stake riveting is applied.

5. Also available in ANSI standard. Please contact Tsubaki for details.

### Dimensions in mm



The**Engineer's**Tool**K** 

<sup>4.</sup> For details on corrosion resistance selection, please consultant our Corrosion Resistance Guide in this catalogue.

### TSUBAKI Standard Attachment Chain

In the world of attachment chain TSUBAKI is the manufacturer you require to assure smooth operation. Whether your application requires attachments or extended pins in Carbon Steel, Neptune, or Stainless Steel, TSUBAKI is your partner. TSUBAKI's maintenance free solution, Lambda, is also available with a wide range of attachments. When starting with a completely new design, TSUBAKI can tailor make an attachment chain for you in any specification.



### Standard Product Range

The product range for our standard attachment chains is:

- BS Single Pitch Standard chain + standard attachments
- ANSI Single Pitch Standard chain + standard attachments
- ANSI Single Pitch HP Hollow Pin chain
- ANSI Single Pitch CU Curved chain
- ANSI Double Pitch Standard chain + standard attachments
- ANSI Double Pitch HP Hollow Pin chain







### TSUBAKI: Specialist Attachment Chain

Tsubaki can produce specialist attachment chains to suit various machine types across many industries, including: food, beverage, paper, and packaging. Tsubaki also offer complete retrofit chains for various industries which offer end users improved performance and a cost saving compared to the OEM.

### **Cost Performance**

We can propose a chain that will lower overall costs – initial costs, costs associated with developing and manufacturing an attachment chain, costs when replacing your chain or ordering additional chains, etc.

### **Reduced Man-hours**

We can propose a chain that will reduce worker costs and effort – time spent mounting jigs to attachments, chain replacement work, downtime for maintenance, etc.

### **Streamlined Manufacturing Lines**

We can propose an integrated attachment chain that streamlines work conveyance on your manufacturing lines – more stable conveyance, optimized attachment shape, more compact equipment.

### Customizability

We can provide customized solutions (from development to production) with original attachment chains to replace your existing chain. Let Tsubaki propose a customized solution that meets your needs.



### High Accuracy, Narrow Tolerance Service

For TSUBAKI, quality is second nature- and so for customers with specific application requirements, we are able to supply chains with a specific length tolerance, or even pairs & multiple chains length matched and tagged in the same way for easy identification and installation. This is as a result of the sophisticated chain length measurement equipment (the "Matchy") kept in house within the European headquarters with supply times for such chains kept to a minimum-ideal for distributors, final : consumers and OEM customers alike.





Bookbinder

Canning





Automotive



Thermoforming



Packaging

### **Tolerances**

When chains have to run in parallel for conveying purposes in for instance packaging machines or when a minimum of difference in chain length is required in lifting applications (accumulator towers in the steel and carpet industry) TSUBAKI excels in quality performance. We can guarantee a maximum chain length difference of 0.50 mm independent of the total chain length demanded by our customers!





### **TSUBAKI: Sprockets**

Tsubaki can also tailor make any sprocket. We have the capabilities to rework and manufacture sprockets to customer specification. Special agreements can be made to have special sprockets available in our warehouse to increase delivery performance as well as production efficiency. Please contact Tsubaki for further details.

### Sprocket performance

System performance highly depends on chain-sprocket interaction, which means your choice of sprockets can elevate your operation's success. Make the right and easy choice with sprockets from Tsubaki.

### • Reduced downtime maintenance • Increased productivity • Lower replacement costs

To ensure maximum performance of your drive system, Tsubaki carbon steel sprockets are executed with induction hardened teeth as a standard to make a perfect match with the premium quality Tsubaki chains.

For extra corrosion resistance and food-grade applications, alloy and stainless steel sprockets are also available.

- 1. Our sprocket range is available from stock in high quality steels (single piece type: C45, welded hub type:C20/Q235, stainless steel AiSi 304).
- 2. All Tsubaki carbon steel sprockets are induction hardened to achieve maximum wear life of both sprockets and chain. Hardness range: 40 - 55
- 3. All Tsubaki sprockets are bored, chamfered and de-burred to ensure proper fit.
- 4. Each carbon steel sprocket is protected with a layer of rust preventive oil and is wrapped in a plastic cover inside the Tsubaki box.







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TSUBAK

D Tauxahi Fee

### Sales Support: Tsubaki Tree



### **KEY BENEFITS FOR YOU:**

- Easy access to all Tsubaki company and product documentation & videos
- Find IADA distributors near you
- Receive a quotation by filing your enquiry accompanied by a photo taken with your iPad
- Registration to get a higher access level to Tsubaki documentation
- Contact Tsubaki offices and sales representatives
- Manage downloads
- Available in 8 languages: English, German, Dutch, French, Italian, Spanish, Polish, Russian





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### ROLLER CHAIN DIN8187-ISO/R 606

**Description** Roller chains are manufactured to internationally recognised standards. European standards refer to the ISO/R 606-1982 (DIN 8187) while American standards refer to ANSI (DIN 8188).

Roller chains are available in simplex (-1), duplex (-2) and triplex (-3) and in a varying range of materials and plating options, such as stainless steel (SS), nickel plated (NP) and zinc plated (ZP).

Attachments are also available along with connecting links (CL) and single (OL) and double (DOL) offset links

### **BRITISH STANDARD ROLLER CHAIN**



ISO Chain No.	Pitch	Roller Diameter	Width between inner plates	Pin Diameter	Pin L	ength	Inner Plates Height	Plate thickness	Trans- verse Pitch	Minimum tensile strength	Average Tensile Strength	Weight per metre
	P mm	A mm	B mm	C mm	D mm	Emm	Fmm	g/G mm	H mm	kN mm	kN mm	kg/m
SIMPLEX												
04B-1	6.000	4.00	2.80	1.85	6.80	7.80	5.00	0.60	-	3.00	3.20	0.11
05B-1	8.000	5.00	3.00	2.31	8.20	8.90	7.10	0.80	-	5.00	5.90	0.20
06B-1*	9.525	6.35	5.72	3.28	13.15	14.10	8.20	1.30	-	9.00	10.40	0.41
08B-1	12.700	8.51	7.75	4.45	16.70	18.20	11.80	1.60	-	18.00	19.40	0.69
10B-1	15.875	10.16	9.65	5.08	19.50	20.90	14.70	1.70	-	22.40	27.50	0.93
12B-1	19.050	12.07	11.68	5.72	22.50	24.20	16.00	1.85	-	29.00	32.20	1.15
16B-1	25.400	15.88	17.02	8.28	36.10	37.40	21.00	4.15/3.1	-	60.00	72.80	2.71
20B-1	31.750	19.05	19.56	10.19	41.30	45.00	26.40	4.5/3.5	-	95.00	106.70	3.70
24B-1	38.100	25.40	25.40	14.63	53.40	57.80	33.20	6.0/4.8	-	160.00	178.00	7.10
28B-1	44.450	27.94	30.99	15.90	65.10	69.50	36.70	7.5/6.0	-	200.00	222.00	8.50
32B-1	50.800	29.21	30.99	17.81	66.00	71.00	42.00	7.0/6.0	-	250.00	277.50	10.25
40B-1	63.500	39.37	38.10	22.89	82.20	89.20	52.96	8.5/8.0	-	355.00	394.00	16.35
48B-1	76.200	48.26	45.72	29.24	99.10	107.00	63.80	12/10	-	560.00	621.60	25.00
DUPLEX												
05B-2	8.000	5.00	3.00	2.31	13.90	14.50	7.10	0.80	5.64	7.80	10.20	0.33
06B-2*	9.525	6.35	5.72	3.28	23.40	24.40	8.20	1.30	10.24	16.90	18.70	0.77
08B-2	12.700	8.51	7.75	4.45	31.20	32.20	11.80	1.60	13.92	32.00	38.70	1.34
10B-2	15.875	10.16	9.65	5.08	36.10	37.50	14.70	1.70	16.59	44.50	56.20	1.84
12B-2	19.050	12.07	11.68	5.72	42.00	43.60	16.00	1.85	19.46	57.80	66.10	2.31
16B-2	25.400	15.88	17.02	8.28	68.00	69.30	21.00	4.15/3.1	31.88	106.00	133.00	5.42
20B-2	31.750	19.05	19.56	10.19	77.80	81.50	26.40	4.5/3.5	36.45	170.00	211.20	7.20

If you would like to view our full range, please refer to our Transmissions Catalogue online at: www.iadaltd.co.uk





### **TAPER BORE SPROCKETS - STEEL & CAST IRON**

**Description** Roller chains are manufactured to internationally recognised standards. European standards refer to the ISO/R 606-1982 (DIN 8187) while American standards refer to ANSI (DIN 8188).

Roller chains are available in simplex (-1), duplex (-2) and triplex (-3) and in a varying range of materials and plating options, such as stainless steel (SS), nickel plated (NP) and zinc plated (ZP).

Attachments are also available along with connecting links (CL) and single (OL) and double (DOL) offset links





a h:

Form C

Sprocket



Tooth radius: 10mm

Radius width C: 1mm

Tooth width h1: 5.3mm

Tooth width :L 5.2mm Tooth width h2: 15.4mm Tooth width h3: 25.6mm

Form 8 Form 7

06B Chain 3/8" x 7/32"

Pitch: 9.525mm Internal width: 5.72mm Roller dia: 6.35mm

06B-1 (31-)

### 06B-2 (32-)

06B-3 (33-)

			1														
Teeth	Do	Dn		9	Simplex				I	Duplex				1	riplex		
reetin	De	Бр	Part No.	d	Bush	Н	Form	Part No.	d	Bush	Н	Form	Part No.	d	Bush	Н	Form
17	55.30	51.83	31-17	45	1008	22	1	32-17	41	1008	22	2	33-17	-	1008	25,6	5
18	58.30	54.85	31-18	45	1008	22	1	32-18	43	1008	22	2	33-18	-	1008	-	-
19	61.30	57.87	31-19	45	1008	22	1	32-19	46	1008	22	2	33-19	-	1008	25,6	5
20	64.30	60.89	31-20	46	1008	22	1	32-20	48	1008	22	2	33-20	-	1008	-	-
21	68.00	63.91	31-21	46	1008	22	1	32-21	49	1008	22	2	33-21	-	1008	25,6	5
22	71.00	66.93	31-22	50	1108	22	1	32-22	52	1108	22	2	33-22	-	-	-	-
23	73.50	69.95	31-23	63	1210	25	1	32-23	59	1210	25	2	33-23	-	1210	25,6	5
24	77.00	72.97	31-24	63	1210	25	1	32-24	61	1210	25	2	33-24	-	-	-	-
25	80.00	76.02	31-25	63	1210	25	1	32-25	64	1210	25	2	33-25	-	1210	25,6	5
26	83.00	79.02	31-26	63	1210	25	1	32-26	65	1210	25	2	33-26	-	-	-	-
27	86.00	82.02	31-27	63	1210	25	1	32-27	70	1210	25	2	33-27	-	1210	25,6	5
28	89.00	85.07	31-28	63	1210	25	1	32-28	70	1210	25	2	33-28	-	-	-	-
30	94.70	91.12	31-30	63	1210	25	1	32-30	75	1210	25	2	33-30	79	1615	38	4
38	119.50	115.35	31-38	70	1210	25	1	32-38	80	1610	25	2	33-38	90	1615	38	4

If you would like to view our full range, please refer to our Transmissions Catalogue online at: www.iadaltd.co.uk

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### DUNFLEX COUPLINGS

#### Description

DUNFLEX coupling flanges are available in either F (Taper Bush fits inside) or H (Taper Bush fits outside) or pilot bored (PB) which can be bored in house to the required size. They can accommodate simultaneous misalignment without imposing undue loads on adjacent bearings, they have excellent shock absorbing properties that reduces vibration and torsional oscillation.

Inserts are available in either natural rubber for use in ambient temperatures between -50°C & +50°C or Chloroprene rubber for use in temperatures between -15°C and +70°C fire resistance and anti-static properties (F.R.A.S).

### Sizes 040 to 060

**Pilot Bore** 

(B)



Taper Flange (F)



Taper Flange (H)

### Sizes 070 to 250



Pilot Bore

(B)



Taper Flange

(F)

Taper Flange (H)

### **DUNFLEX COUPLINGS**

Coupling	Bush	Max	Bore						Types	F & H	Тур	es B	Clamping	Weight	Inertia
Size	Size	Metric	Inch	A	В	С	E	G	F	D	F	D	Screw	(kg)	(kgm²)
F040B	-	32	-	104	-	82	11.0	29	-	-	33.0	22	M5	0.8	0.00074
F040F	1008	25	1"	104	-	82	11.0	29	33.0	22	-	-	-	0.8	0.00074
F040H	1008	25	1"	104	-	82	11.0	29	33.0	22	-	-	-	0.80	0.00074
F050B	-	38	-	133	79	100	12.5	38	-						0.00115
F050F	1210	32	1.1/4"	133	79	100	12.5	38	38.0	25	-	-	-	1.2	0.00115
F050H	1210	32	1.1/4"	133	79	100	12.5	38	39.0	25	-	-	-	1.2	0.00115
F060B	-	45	-	165	70	125	16.5	38	-	-	55.0	38	M6	2.0	0.0052
F060F	1610	42	1.5/8″	165	103	125	16.5	38	42.0	25	-	-	-	2.0	0.0052
F060H	1610	42	1.5/8″	165	103	125	16.5	38	42.0	25	-	-	-	2.0	0.0052
F070B	-	50	-	187	80	144	11.5	-	-	-	47.0	35	M10	3.1	0.009
F070F	2012	50	2"	187	80	144	11.5	42	44.0	32	-	-	-	3.1	0.009
F070H	1610	42	1.5/8"	187	80	144	11.5	38	42.0	25	-	-	-	3.0	0.009
F080B	-	60	-	211	98	167	12.5	-	-	-	55.0	42	M10	4.9	0.018
F080F	2517	60	2.1/2"	211	97	167	12.5	48	58.0	45	-	-	-	4.9	0.018
F080H	2012	50	2"	211	98	167	12.5	42	45.0	32	-	-	-	4.6	0.017
F090B	-	70	-	235	112	188	13.5	-	-	-	63.5	49	M12	7.1	0.032
F090F	2517	60	2.1/2"	235	108	188	13.5	48	59.5	45	-	-	-	7.0	0.031

If you would like to view our full range, please refer to our Transmissions Catalogue online at: **www.iadaltd.co.uk** 









### HRC COUPLINGS

### Description

HRC coupling flanges are available in either F (Taper Bush fits inside) or H (Taper Bush fits outside) or pilot bored (PB) which can be bored in house to the required size.

These semi-elastic couplings are designed for general purpose use, they permit quick and easy assembly by means of taper bush fixing to the mating shaft.

Inserts are available in either natural rubber for use in ambient temperatures between -50°C & +50°C or chloroprene rubber for use in temperatures between -15°C and +70°C fire resistance and anti-static properties (F.R.A.S).



**HRC** Assembly







B Flange (Pilot Bore)

CHAIN DRIVES & HARDWARE

F Flange (Taper Bore)

### HRC COUPLINGS

Coupling	Nominal	Overall	Hub	Flange	Insert	Insert	Parallel		A	ssembled Len	gth
No.	torque	Diameter	Diameter	Length	Bore Dia	Width	Misalignment	Weight	L	L	L
	Nm	A	В	F	E	G	(mm)	(kg)	FF, FH, HH	FB, HB	BB
HRC70	31	69	60	25.5	31	18.5	0.3	1.00	65.5	65.5	65.5
HRC90	80	85	70	30.5	32	22.5	0.3	1.17	69.5	76.5	82.5
HRC110	160	112	100	45.5	45	29.5	0.3	5.00	82.5	100.5	119.5
HRC130	315	130	105	53.5	50	36.5	0.4	5.46	89.5	110.5	131.5
HRC150	600	150	115	60.5	62	40.5	0.4	7.11	107.5	129.5	152.5
HRC180	950	180	125	73.5	77	49.5	0.4	16.65	142.5	165.5	189.5
HRC230	2000	225	155	85.5	99	59.5	0.5	26.05	164.5	202.5	239.5
HRC280	3150	275	206	105.5	119	74.5	0.5	50.05	207.5	246.5	285.5

Angular misalignment capacity up to 1 deg. Mass is for an FF, FH or HH coupling with mid range Taper Bushes F refers to combinations of flanges: FF, FH. HH, FB, HB, BB.

### HRC TYPE F & H

Coupling No.	Bush Size	(mm)	(ins)	Shoulder Width D	Hub Width C
HRC70	1008	25	1	20.0	23.5
HRC90	1108	28	1.1/8	19.5	23.5
HRC110	1610	42	1.5/8	18.5	26.5
HRC130	1610	42	1.5/8	18.0	26.5
HRC150	2012	50	2	23.5	33.5
HRC180	2517	60	2.1/2	34.5	46.5

### **HRC TYPE B**

Coupling No.	Max Bore (mm)	Pilot Bore (mm)	Keyway Screw Size	Shoulder Width D	Hub Width C
HRC70	32	8	M6	20	23.5
HRC90	42	10	M6	26	30.5
HRC110	55	10	M10	37	45.5
HRC130	60	15	M10	39	47.5
HRC150	70	20	M10	46	56.5
HRC180	80	25	M10	58	70.5

If you would like to view our full range, please refer to our Transmissions Catalogue online at: www.iadaltd.co.uk

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TAPER BUSHES



### **TAPER BUSHES**

#### Description

Dunlop Taper Bushes are the most convenient and cost effective method of fixing components to a mating shaft without using any special tools. Taper Bushes are pre-machined with the required bore & keyway size and are supplied complete with locking set screws, thus making savings in time and cost on any machining process.

They are available with both metric or imperial bore and keyway size options.

Taper Bushes are designed for use with V-Pulleys, Chain Sprockets, Micro V-Pulleys, Timing Belt Pulleys, Couplings, Weld-On & Bolt-On Hubs. Part numbers are identified by a 4 digit number (e.g. 1610) which represents the taper bush series followed by the bore size (e.g. 28mm) for example 1610x28mm.

### **METRIC BORES AND KEYWAYS**

BORE	KEY	WAY	SHALLOW				TAPER BU	JSH PART NU	MBER			
DIA.	WIDTH	DEPTH	KEYWAY DEPTH	1008	1108	1210	1610	1615	2012	2517	3020	3030
9	3	1.4	-	*	*							
10	3	1.4	-	*	*							
11	4	1.8	-	*	*	*						
12	4	1.8	-	*	*	*						
14	5	2.3	-	*	*	*	*	*	*			
15	5	2.3	-	*	*	*	*	*	*			
16	5	2.3	-	*	*	*	*	*	*	*		
18	6	2.8	-	*	*	*	*	*	*	*		
19	6	2.8	-	*	*	*	*	*	*	*		
20	6	2.8	-	*	*	*	*	*	*	*		
22	6	2.8	-	*	*	*	*	*	*	*		
24	8	3.3	1.3	*	*	*	*	*	*	*		
25	8	3.3	1.3	*	*	*	*	*	*	*	*	
28	8	3.3	1.3		*	*	*	*	*	*	*	
30	8	3.3	-			*	*	*	*	*	*	
32	10	3.3	-			*	*	*	*	*	*	
35	10	3.3	-				*	*	*	*	*	*
38	10	3.3	-				*	*	*	*	*	*
40	12	3.3	-				*	*	*	*	*	*
42	12	3.3	2.2				*	*	*	*	*	*
45	14	3.8	-						*	*	*	*
48	14	3.8	-						*	*	*	*
50	14	3.8	-						*	*	*	*
55	16	4.3	-							*	*	*
60	18	4.4	-							*	*	*
65	18	4.4	-								*	*
70	20	4.9	-								*	*
75	20	4.9	-								*	*

If you would like to view our full range, please refer to our Transmissions Catalogue online at: **www.iadaltd.co.uk** 





### **BELT AND CHAIN TENSIONERS**

### Description

Tensioning devices SE are available for both roller chain and V-Belt applications.

A range of idler sprockets to suit standard roller chain pitch sizes from O6B-1 to 24B-1 are available.

A range of idler roller pulleys are also available to suit standard V and wedge belt sections from Z/SPZ to C/SPC. Both designs have 2Z bearings fitted to the bore.



### **TENSIONER ARM TYPE SE**

Part No.	D	I		G	н	J1	J²	к	L	м	N	0	Р	Т	U	Weight (kg)
SE 11	35	51	+1 -0.5	5	M6	80	60	20	90	20	22	6	8	8.5	16.5	0.2
SE 15	45	64	+1 -0.5	5	M8	100	100	25	112.5	25	30	8	8.5	10.5	20.8	0.4
SE 18	58	79	+1.5 -0.5	7	M10	100	100	30	115	30	35	10.5	8.5	10.5	25.3	0.6
SE 27	78	108	+2 -0.5	8	M12	130	130	50	155	40	52	15	10.5	12.5	34.3	1.7
SE 38	95	140	+2 -0.5	10	M16	175	175	60	205	40	66	15	12.5	20.5	42.0	3.6
SE 45	115	200	+3 -1	12	M20	225	225	70	260	50	80	18	12.5	20.5	52.0	6.4



If you would like to view our full range, please refer to our Transmissions Catalogue online at: **www.iadaltd.co.uk** 





# RENOLD

- Our leading standard steel transmission chain
- **Excellent wear resistance**
- Wide waisted GP plate shape
- **Fatigue performance rated as ISO + 60%**
- Guarantee of 15,000 hours
- End-softened, spin riveted pin for easy cutting
- 3/8" to 4" pitch, simplex & duplex



Renold's unique control over pin / bush contact makes sure that wear life exceeds other brands. Little initial chain adjustment is therefore required. Renold roller chain is highly fatigue resistant, giving up to four times the life of other leading competitor chains.

Breaking loads exceed the minimum requirements of the international standards.

Renold's end-softened pin and spin rivet help to minimise downtime. All you need is a Renold pin extractor

and you can disassemble Renold roller chain in seconds; no need to grind the head of the pin, no need for lengthy downtime.

Renold BS	ISO	Pitch			Connec	ting links		
Order Code	No.	inch	4	107	11	26	12	30
06B1X10FT	06B-1	0.375	1	1	-	1		1
08B1X10FT	08B-1	0.500	1	1		1		1
10B1X10FT	10B-1	0.625	1	1		1		1
12B1X10FT	12B-1	0.750	1	1		1	1.1	1
16B1X10FT	16B-1	1.000	1	1		1	1	1
20B1X10FT	20B-1	1.250	1	1		1	1	1
24B1X10FT	24B-1	1.500	1	1	1	-	1	1

### **Duplex**

Simplex

Renold BS	ISO	Pitch			Connecting links				
Order Code	No.	inch	4	107	11	26	12	30	
06B2X10FT	06B-2	0.375	1	1		1		1	
08B2X10FT	08B-2	0.500	1	1	1.1	1		1	
10B2X10FT	10B-2	0.625	1	1	1.1	1		1	
12B2X10FT	12B-2	0.750	1	1	1.1	1		1	
16B2X10FT	16B-2	1.000	1	1	1.1	1	1	1	
20B2X10FT	20B-2	1.250	1	1	1.1	1	1	1	
24B2X10FT	24B-2	1.500	1	1	1	-	1	1	



S11/S58







S12





Syno<sup>m</sup>

- No lubrication normally required
- Outside of chain totally dry-to-the-touch
- Nickel-plated plates
- **Food industry-approved lubricant within sintered bush**
- Unique food industry-approved roller coating
- Dimensionally interchangeable with standard chain
- ISO standard pin diameter, therefore standard attachments on outer links

For use in hygiene-sensitive applications or situations where contamination from lubricant is to be avoided, Renold Syno chain displays all the characteristics you need from a chain. With a food industryapproved lubricant within the sintered bush, this chain will in almost all instances not need relubricating. The roller coating is also suitable for use in the food industry; a unique feature on any chain. Available in boxed 10-foot lengths from 06B to 24B and ANSI 40 to ANSI 100, simplex and duplex with a standard pin diameter, this means that Renold Syno chain is dimensionally interchangeable with standard roller chain and is even compatible with standard sprockets.

With the kind of excellent wear and fatigue resistance that you expect from a Renold chain, Syno chain outlasts any competitor product promoted as low-lube or non-lube. Already tried and tested by major companies in the food sector and elsewhere, if you have to operate with minimal lubrication but can't compromise on performance, we can boost your productivity, cut your downtime and save you time and money.

oductivity, cut your downtime and sa u time and money.

#### Simplex

Simplex							
Renold BS	ISO	Pitch		C	onnecting linl	ks –	
Order Code	No.	inch	26	107	11	12	30
06B1SNX10FT	06B-1	0.375	1	1	-	-	1
08B1SNX10FT	08B-1	0.500	1	1	✓		1
10B1SNX10FT	10B-1	0.625	1	1	1		1
12B1SNX10FT	12B-1	0.750	1	✓	1		<ul> <li>Image: A second s</li></ul>
16B1SNX10FT	16B-1	1.000	1	✓	1	1	<ul> <li>Image: A second s</li></ul>
20B1SNX10FT	20B-1	1.250	✓	✓	1	1	1
24B1SNX10FT	24B-1	1.500	-	1	1	1	1

Duplex

Renold BS	ISO	Pitch	Connecting links							
Order Code	No.	inch	26	107	11	12	30			
06B2SNX10FT	06B-2	0.375	1	1	1	-	1			
08B2SNX10FT	08B-2	0.500	1	1	1	-	1			
10B2SNX10FT	10B-2	0.625	1	1	1	-	1			
12B2SNX10FT	12B-2	0.750	1	1	1	-	1			
16B2SNX10FT	16B-2	1.000	1	1		1	1			
20B2SNX10FT	20B-2	1.250	1	1	1	1	1			
24B2SNX10FT	24B-2	1.500	-	1	1	1	1			



526



S107









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**CHAIN DRIVES** & HARDWARE TheEngineer'sToolKit

### **Renold Hydro-Service**<sup>®</sup> Superior corrosion resistance for chain

Superior corrosion resistance

- Last as much as 30 times longer than standard carbon steel
- Hexavalent chrome free
- 350 hours corrosion protection during salt spray tests to DIN 50021
- Cold extruded, solid bush and roller delivering maximum Renold performance
- Plates and rollers shot peened to our exact specifications
- Wear and fatigue resistance that delivers maximum working life
- Lubrication that improves wear performance

Renold Hydro-Service chain delivers superior corrosion resistance, lasting as much as 30 times longer than standard carbon steel in applications that have to deal with water or salt spray. It is ideal for wash-down environments. Hydro-Service chain is also more economical, and stronger, than stainless steel.

Each component is mechanically treated prior to assembly to ensure consistent, secure protection. The surface treatment is free of hexavalent chrome, complying with legislation relating to environmental and health & safety considerations.

Kenola bo	150	FILLI			connecting init		
Order Code	No.	inch	26	107	11	12	30
06B1HSX10FT	06B-1	0.375	1	1	-	· ·	1
08B1HSX10FT	08B-1	0.500	1	1	-	· ·	1
10B1HSX10FT	10B-1	0.625	1	1	-		1
12B1HSX10FT	12B-1	0.750	1	1	-		1
16B1HSX10FT	16B-1	1.000	1	1	-	1	-
20B1HSX10FT	20B-1	1.250	1	1	-	1	-
24B1HSX10FT	24B-1	1.500	-	1	✓	1	
Duplex							
Renold BS	ISO	Pitch		(	Connecting lin	ks	
Order Code	No.	inch	26	107	11	12	30
06B2HSX10FT	06B-2	0.375	1	1	-	-	1
08B2HSX10FT	08B-2	0.500	1	1	-		1
10B2HSX10FT	10B-2	0.625	1	1	-		1
12B2HSX10FT	12B-2	0.750	1	1	-	· ·	1
16B2HSX10FT	16B-2	1.000	1	1	-	1	
20B2HSX10FT	20B-2	1.250	1	1	-	1	-
24R2HSY10ET	2/R-2	1 500		1	1	1	



S26





S12





Simplex



## **Renold Conveyor Chain**

Standard stock range of BS conveyor chain, available ex-stock. 3,000 to 30,000lb chains produced in our dedicated UK manufacturing cell.



- Fast availability of standard integral attachments
- Standard cast iron sprockets available ex-stock
- Supporting this standard range we also have the capability to supply specials and customdesigned products.













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# RENOLD SD

- An extensive product line of European (BS), ANSI and DIN standard chains
- Competitive prices and delivery
- Consistent quality
- Depth of inventory

If you are looking for a good quality product from a reliable supplier for "standard duty" chain applications, look to **RENOLD SD**, the new benchmark in the economy chain category. Renold is recognized as the worldwide leader in chain products and has established manufacturing facilities across the globe. While most suppliers buy-in their economy line of chain, Renold manufactures its own.

RENDLD

Renold BS	ISO	Pitch	Connecting links							
Order Code	No.	inch	4	107	11	26	12	30		
SD06B1X10FT	06B-1	0.375	1	1	-	1	-	1		
SD08B1X10FT	08B-1	0.500	1	1	-	1	-	1		
SD10B1X10FT	10B-1	0.625	1	1	-	1	-	1		
SD12B1X10FT	12B-1	0.750	1	1	-	1	-	1		
SD16B1X10FT	16B-1	1.000	1	1	-	1	1	1		
SD20B1X10FT	20B-1	1.250	1	1	-	1	1	1		
SD24B1X10FT	24B-1	1.500	1	1	1	-	1	1		

### Duplex

Simplex

Renold BS	ISO	Pitch	Connecting links					
Order Code	No.	inch	4	107	11	26	12	30
SD06B2X10FT	06B-2	0.375	1	1	-	1	-	1
SD08B2X10FT	08B-2	0.500	1	1	-	1	-	1
SD10B2X10FT	10B-2	0.625	1	1	-	1	-	1
SD12B2X10FT	12B-2	0.750	1	1	-	1	-	1
SD16B2X10FT	16B-2	1.000	1	1	-	1	<ul> <li>Image: A second s</li></ul>	1
SD20B2X10FT	20B-2	1.250	1	1	-	1	<ul> <li>Image: A second s</li></ul>	1
SD24B2X10FT	24B-2	1.500	1	1	1	-	1	1





Nr. 107



Nr. 26

INT. 20



Nr. 12



Nr. 30



# TheEngineer'sToolKit

## **Renold Stainless Steel**

- All components made from austenitic rust-proof steel
- All components receive surface finishing to remove stress raisers
- Lubrication that improves wear performance
- Tensile strength is approximately 65% that of standard carbon steel chain



CHAIN DRIVES & HARDWARE

Renold Stainless Steel chain is made from high grades of austenitic rust-proof steel. These perform extremely well in environments that are acidic, alkaline, where direct contact with food is a consideration, where the chain will be exposed to water, and for very high or very low temperature locations (-40° to +400°C) where resistance to corrosion is a requirement.

Renold Stainless Steel chain should be selected when resistance to chemical action is critical.

It is manufactured using FDA approved material and is prelubricated with USDA H1 approved lubricant.

Renold BS	ISO	Pitch	Connecting links						
Order Code	No.	inch	4	107	11	58	26	12	
05B1SSX10FT	05B-1	0.315	1	1	-	-	1	-	
06B1SSX10FT	06B-1	0.375	1	1	-		1	1	
08B1SSX10FT	08B-1	0.500	1	1	1	-	1	-	
10B1SSX10FT	10B-1	0.625	1	1	1	-	1	-	
12B1SSX10FT	12B-1	0.750	1	1	1	-	1	-	
16B1SSX10FT	16B-1	1.000	1	1	1		1		

### Duplex

Simplex

Renold BS	ISO	Pitch	Connecting links						
Order Code	No.	inch	4	107	11	58	26	12	
05B2SSX10FT	05B-2	0.315	1	1	-	-	1	-	
06B2SSX10FT	06B-2	0.375	1	1			1	1	
08B2SSX10FT	08B-2	0.500	1	1	1		1	-	
10B2SSX10FT	10B-2	0.625	1	1	1	-	1	-	
12B2SSX10FT	12B-2	0.750	1	1	1	-	1	-	
16B2SSX10FT	16B-2	1.000	1	1	1	-	1	-	







No. 11









# National **Power** Local **Strength**

Supplying industrial products, services and solutions since 1998