# RS ROLLER CHAIN GT4 WINNER

TSUBAKI GT4 Winner is the most advanced BS/DIN standard roller chain in the European market. Since 1917 Tsubakimoto Chain Company has maintained a line-up of cutting-edge chain products with exceptional quality and performance. TSUBAKI is proud of the 4th generation, enhanced European premium BS/DIN chain.

# **Advantages**

TSUBAKI RS roller chain GT4 Winner is enhanced with the following advantages:

#### **Wear resistance**

TSUBAKI's patented LG (Lube Groove) seamless bushes are precision components and perfectly cylindrical. Our special lube grooves hold oil at the point of contact, where the chain needs it most. The result is a chain that lasts longer with lower maintenance costs over the lifetime of the chain. The Lube Groove is applied to RS16B, RS20B and RS24B.

## Easy disassembling with centre sink pin design

The chains can be easily and safely disassembled with a standard screw type cutter without damaging bushes. Center sink riveting is applied to RS08B up to RS16B single strand chain.

## **Increased kW Rating**

The TSUBAKI Ring Coining process on the connecting link plate allows the chain to be specified up to its full kW rating.



Fig. 13 Ring Coined Connecting Link Plate

In general, connecting links have 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. Generating a cold deformation around the pin hole of the connecting link plate results in residual stress around this region, thereby adding strength. By using this process we can achieve 100% transmission capacity of the base chain.

#### **Constant Quality Level**

In pursuit of outstanding quality, every TSUBAKI chain is made of a special steel alloy, the specification of which has been developed by the TSUBAKI engineering department for selected steel mills to work with. TSUBAKI produces the GT4 Winner under highly controlled conditions in its advanced heat treatment facilities. This, in combination with TSUBAKI fatigue strength tests, ensures that our customers can always rely on a constant level of quality whenever using TSUBAKI products.

#### **Customized Pre-Lubrication Service**

Proper lubrication is the key to extending the life and improving the performance of a chain. In order to get the best performance in general applications (- $10^{\circ}$ C to  $+60^{\circ}$ C), all GT4 Winner drive chains are pre-lubricated.

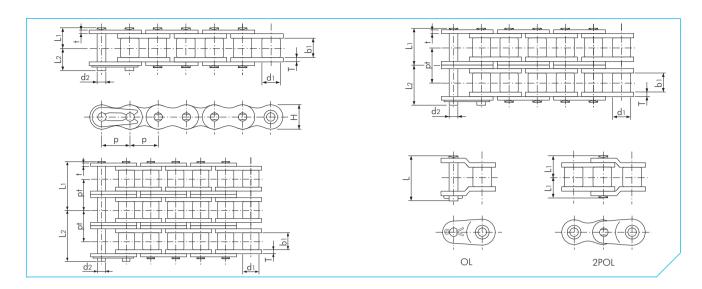
For special applications, TSUBAKI can provide chains which are pre-lubricated with a special lubricant on customer demand:

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

Please consult TSUBAKI for more detailed information.



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# **BS GT4 WINNER**

### Dimensions in mm

													Dimensions in mm			
					Pin				Link Plate							
													Min. Tensile	Min. Tensile		
													Strength	Strength		
			Roller	Inner								Transverse	acc. to	acc. to	Approx.	
TSUBAKI	Pitch		Diameter	Width	Diameter	Length	Length	Length	Thickness	Thickness	Height	Pitch	ISO 606	Tsubaki	Mass	
Chain No.						_	_	Lengin								
	р		d1	b1	d2	L1	L2	L	Т	t	H (max)	pt	kN	kN	kg/m	
RS05B-1		/a a				3.80	4.70	-				-	4.4	5.0	0.18	
RS05B-2	8.00	(0.315")	5.00	3.00	2.30	6.65	7.55		0.75	0.75	7.10	5.64	7.8	7.8	0.35	
RS05B-3		•••••				9.45	10.35	-				5.64	11.1	11.1	0.53	
RF06B-1		(0.10.11)				6.10	7.70	15.10					8.9	9.0	0.39	
RF06B-2	9.525	(3/8")	6.35	5.72	3.27	11.20	12.80	25.90	1.30	1.00	8.20	10.24	16.9	17.0	0.75	
RF06B-3						16.40	17.90	36.10				10.24	24.9	24.9	1.11	
RS08B-1	12.70	(1/2")	8.51	7.75	4.45	8.40	10.00	18.60	1.60	1.60	11.80	-	17.8	19.0	0.70	
RS08B-2						15.30	16.90	34.50				13.92	31.1	32.0	1.35	
RS08B-3						22.25	23.85	48.40				13.92	44.5	47.5	2.00	
RS10B-1						9.55	11.25	20.80				-	22.2	23.0	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	1.85	
RS10B-3						26.15	27.85	56.00				16.59	66.7	66.8	2.80	
RS12B-1						11.10	13.00	24.40				-	28.9	31.0	1.25	
RS12B-2	19.05	(3/4")	12.07	11.68	5.72	20.85	22.75	45.90	1.80	1.80	16.10	19.46	57.8	61.0	2.50	
RS12B-3	1					30.60	32.50	65.40	1			19.46	86.7	92.0	3.80	
RS16B-1	25.40	(1″)	15.88	17.02	8.28	17.75	19.95	41.10	4.00	3.20	21.00	-	60.0	70.0	2.70	
RS16B-2						33.55	35.75	75.20				31.88	106.0	128.0	5.40	
RS16B-3						49.50	51.70	107.10				31.88	160.0	192.0	8.00	
RS20B-1		•••••				19.90	23.10	46.60				-	95.0	98.1	3.85	
RS20B-2	31.75	(1 1/4")	19.05	19.56	10.19	38.25	41.45	84.60	4.40	3.40	26.00	36.45	170.0	197.0	7.65	
RS20B-3						56.50	59.70	121.00				36.45	250.0	295.0	11.45	
RS24B-1		•••••				26.65	31.85	61.70	6.00	5.60	33.40	-	160.0	167.0	7.45	
RS24B-H-1		( a a ( a m				29.30	34.20	-	7.50	6.00	36.20	_	-	234.0	8.20	
RS24B-2	38.10	(1 1/2")	25.40	25.40	14.63	50.80	56.00	112.80				48.36	280.0	335.0	14.65	
RS24B-3				[ ]		75.10	80.20	161.10	6.00	5.60	33.40	48.36	425.0	500.0	21.75	
RS28B-1		•••••				32.45	37.45	74.40				-	200.0	200.0	9.45	
RS28B-2	44.45	(1 3/4")	27.94	30.99	15.90	62.15	67.15	136.60	7.50	6.30	36.40	59.56	360.0	374.0	18.80	
RS28B-3		(. 0, . )		00.77	12.70	91.95	96.95	195.90	7.00	0.00	300	59.56	530.0	560.0	28.20	
RS32B-1		•••••				32.10	37.70	73.30				-	250.0	255.0	10.25	
RS32B-2	50.80	(2")	29.21	30.99	17.81	61.25	66.85	134.50	7.00	6.30	42.20	58.55	450.0	485.0	20.10	
RS32B-3	30.00	\ <u>~</u> /	27.21	30.77	17.01	90.50	96.10	192.60	7.00	0.50	72.20	58.55	670.0	729.0	29.90	
RS40B-1		•••••				39.25	45.05	88.60					355.0	373.0	16.35	
RS40B-2	63.50	(2 1/2")	39.37	38.10	22.89	75.40	81.20	163.20	8.50	8.00	52.90	72.29	630.0	716.0	32.00	
RS40B-2	03.50	(2 1/2 )	37.37	30.10	22.07	• • • • • • • • • • • • • • • • • • • •	117.30	235.30	0.50	0.00	32.70	72.29	950.0	•	47.75	
RS48B-1		••••				111.50 49.30	58.80	117.70				- 12.29	565.0	1080.0 565.0	25.00	
	76.20	(3")	48.26	45.72	29.23				12.10	10.00	63.80					
RS48B-2						95.00	104.40	209.00				91.21	1000.0	1000.0	50.00	
RS48B-3	l					140.60	150.00	300.20				91.21	1500.0	1520.0	75.00	

#### Note

- 1. For sizes RS16B RS24B Lube Grooves (LG) are applied
- 2. Connecting links are clip type for sizes up to RS16B, and cotter type for sizes RS20B to RS48B.
- 3. RF06B chain has flat-shaped link plates.
- 4. Intermediate plate of multi strand RF06B-2 and RS08B-2 chain is a solid plate.
- 5. Center sink riveting is applied to RS08B-1 to RS16B-1 single strand chain.
- 6. Double stake riveting is applied to all other sizes including multi-strand chain.
- 7. When a single pitch offset link is used, please calculate a 40% reduction of the fatigue strength.
- 8. RS24B-H-1 chain is a reinforced RS24B-1 chain.