

Ansi G7 and BS GT4 Winner Standard Roller Chain

Technical Evolution

All ANSI Chains Are Not Created Equal

ANSI defines minimum threshold standards: acceptable, but they won't improve your bottom line. TSUBAKI ANSI G7 Chains set the bar higher with design innovations that deliver solid results!

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, and in BS size 16B through 24B perfectly sized for the most demanding applications.

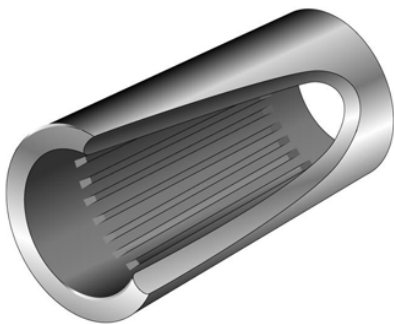


Fig. 15 Solid Lube Groove Bush

Advantages

TSUBAKI has enhanced the ANSI G7 with the following advantages:

Save Operating Costs and Reduce Downtime

Normally, ANSI and BS 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 G7 and BS GT4 chains.

Increased kW Rating

Transmission capacity has been increased by applying the patented 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 patented Ring Coining process. By applying the patented 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 G7 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 G7 drive chains are pre-lubricated.

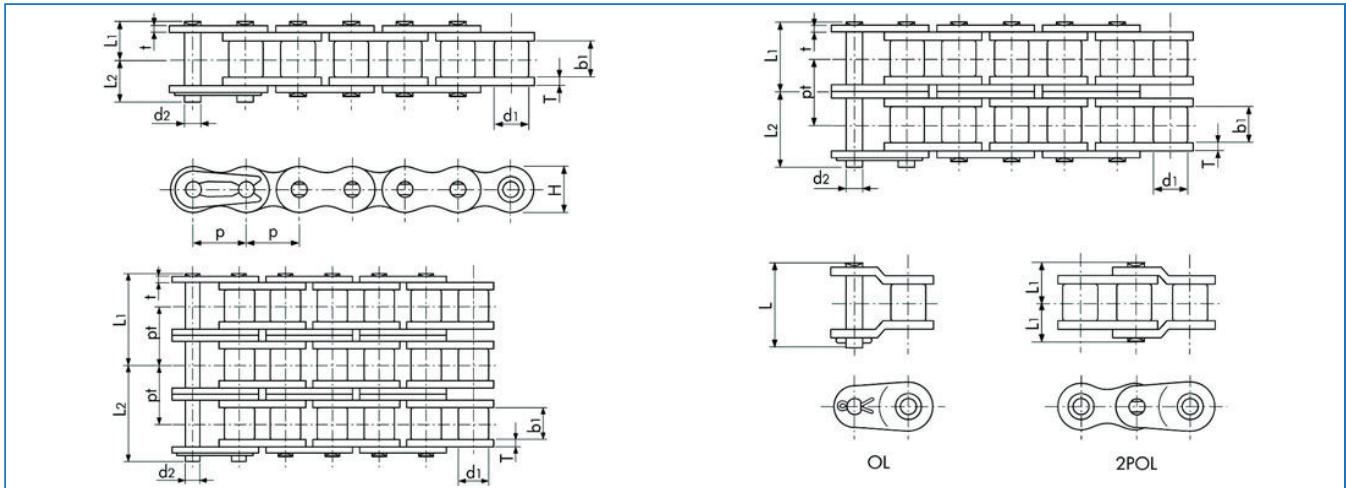
For special applications, TSUBAKI can provide chains which are pre-lubricated with a special lubricant on customer demand:

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

Please consult TSUBAKI for more detailed information.



BS GT4 Winner Standard Roller Chain



Dimensions in mm

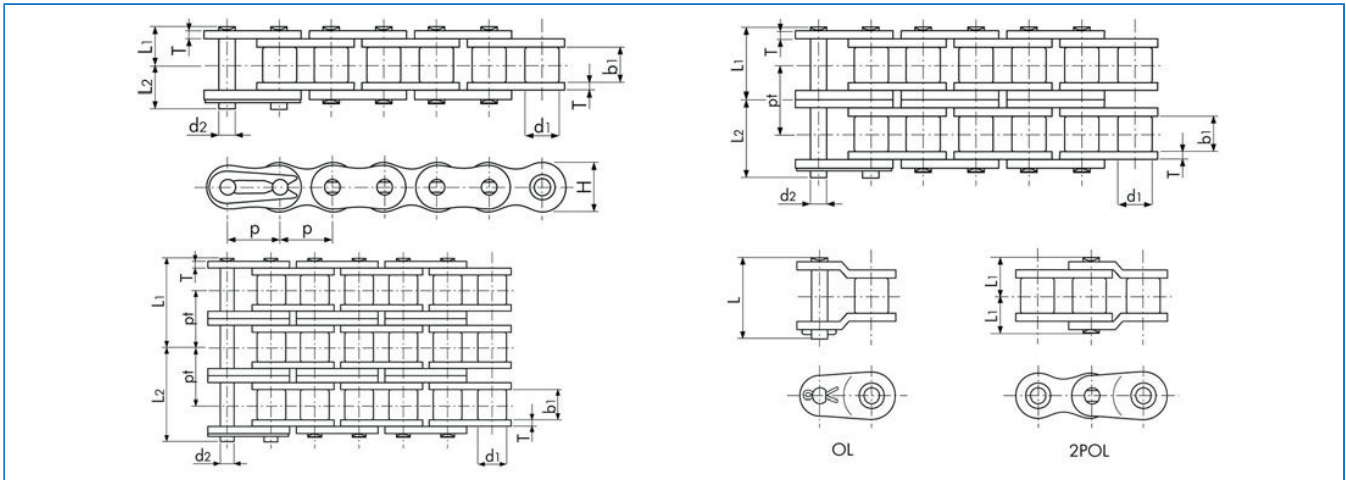
TSUBAKI Chain No.	Pitch p	Roller Diameter d1	Inner Width b1	Pin			Link Plate			Transverse Pitch pt	Min. Tensile Strength acc. to ISO 606 kN	Min. Tensile Strength acc. to Tsubaki kN	Min. Tensile Strength acc. to Tsubaki kN	Approx. Mass kg/ m			
				Diameter d2	Length		Thickness T	Height t	H (max)								
					L1	L2									L		
RS05B-1	8.00 (0.315")	5.00	3.00	2.30	3.80	4.70	-	0.75	0.75	7.10	-	4.4	5.0	5.8	0.18		
RS05B-2					6.65	7.52	-				5.64	7.8	8.9	0.35			
RS05B-3					9.45	10.34	-				5.64	11.1	12.8	0.53			
RFO6B-1	9.525 (3/8")	6.35	5.72	3.27	6.10	7.70	14.20	1.30	1.00	8.20	-	8.9	9.0	9.9	0.39		
RFO6B-2					11.43	12.57	-				10.24	16.9	17.0	18.7	18.7		
RFO6B-3					16.90	17.50	-				10.24	24.9	24.9	27.4	1.11		
RS08B-1	12.70 (1/2")	8.51	7.75	4.45	8.40	10.00	18.40	1.60	1.60	12.00	-	17.8	19.0	20.9	0.70		
RS08B-2					15.30	16.90	33.60				13.92	31.1	32.0	35.2	1.35		
RS08B-3					22.25	23.85	47.60				13.92	44.5	47.5	52.3	2.00		
RS10B-1	15.875 (5/8")	10.16	9.65	5.08	9.55	11.25	21.10	1.50	1.50	14.70	-	22.2	23.0	25.3	0.95		
RS10B-2					17.85	19.55	39.40				16.59	44.5	44.5	49.0	1.85		
RS10B-3					26.15	27.85	56.10				16.59	66.6	66.8	73.5	2.80		
RS12B-1	19.05 (3/4")	12.07	11.68	5.72	11.10	13.00	24.80	1.80	1.80	16.10	-	28.9	31.0	34.1	1.25		
RS12B-2					20.85	22.75	46.30				19.46	57.8	61.0	67.1	2.50		
RS12B-3					30.60	32.50	66.00				19.46	86.7	92.0	101.0	3.80		
RS16B-1	25.40 (1")	15.88	17.02	8.28	17.75	19.95	38.90	4.00	3.20	21.00	-	60.0	70.0	77.0	2.70		
RS16B-2					33.55	35.75	73.80				31.88	106.0	128.0	141.0	5.40		
RS16B-3					49.50	51.70	105.90				31.88	160.0	192.0	211.0	8.00		
RS20B-1	31.75 (1 1/4")	19.05	19.56	10.19	19.90	23.10	46.95	4.40	3.40	26.00	-	95.0	98.1	108.0	3.85		
RS20B-2					38.25	41.45	84.85				36.45	170.0	197.0	217.0	7.65		
RS20B-3					56.50	59.70	121.35				36.45	250.0	295.0	325.0	11.45		
RS24B-1	38.10 (1 1/2")	25.40	25.40	14.63	26.65	31.85	62.00	6.00	5.60	33.40	-	160.0	167.0	184.0	7.45		
RS24B- H-1					29.30	34.20	-				7.50	6.00	36.20	-	234.0	270.0	8.20
RS24B-2					50.80	56.00	112.95				48.36	280.0	335.0	369.0	14.65		
RS24B-3	75.10	80.20	161.35	48.36	425.0	500.0	550.0	21.75									
RS28B-1	44.45 (1 3/4")	27.94	30.99	15.90	32.45	37.45	74.50	6.00	5.60	33.40	-	200.0	200.0	220.0	9.45		
RS28B-2					62.15	67.15	136.85				59.56	360.0	374.0	411.0	18.80		
RS28B-3					91.95	96.95	196.45				59.56	530.0	560.0	616.0	28.20		
RS32B-1	50.80 (2")	29.21	30.99	17.81	32.10	37.70	73.50	7.00	6.30	42.20	-	250.0	255.0	281.0	10.25		
RS32B-2					61.25	66.85	135.25				58.55	450.0	485.0	534.0	21.10		
RS32B-3					90.50	96.10	193.80				58.55	670.0	729.0	802.0	29.90		
RS40B-1	63.50 (2 1/2")	39.37	38.10	22.89	39.25	45.05	88.85	8.50	8.00	52.90	-	355.0	373.0	410.0	16.35		
RS40B-2					75.40	81.20	163.55				72.29	630.0	716.0	788.0	32.00		
RS40B-3					111.50	117.30	235.85				72.29	950.0	1080.0	1190.0	47.75		
RS48B-1	76.20 (3")	48.26	45.72	29.23	49.30	58.80	117.70	12.10	10.00	63.80	-	560.0	565.0	618.0	25.00		
RS48B-2					95.00	104.40	209.00				91.21	1000.0	1000.0	1150.0	50.00		
RS48B-3					140.60	150.00	300.20				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. RFO6B chain has flat- shaped link plates.
3. Intermediate plate of multi strand RFO6B-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.

ANSI G7 Standard Roller Chain



Dimensions in mm

TSUBAKI Chain No.	Pitch P	Roller Diameter d1	Inner With b1	Pin			Link Plate		Transverse Pitch pt	Min.Tensile Strength acc. to ANSI kN	Min.Tensile Strength acc. to Tsubaki kN	Approx. Mass kg/ m	
				Diameter d2	Length L1	Length L2	Length L	Thickness T					Height H(max)
RS25-1	6,35 (1/4")	3.3	3.18	2.31	3.8	4.5	-	0.74	5.84	-	3.6	4.1	0.14
RS25-2					6.95	7.75	-			6.4	7.2	8.2	0.27
RS25-3					10.15	10.95	-			6.4	10.8	12.4	0.42
RS35-1	9,525 (3/8")	5.08	4.78	3.59	5.85	6.85	13.5	1.25	9	-	8.7	9.8	0.33
RS35-2					10.9	11.9	24.5			10.1	17.4	19.6	0.69
RS35-3					16	16.9	34.6			10.1	26.1	29.4	1.05
RS35-4					21.05	21.95	44.7			10.1	-	39.2	1.41
RS37-1	12,70 (1/2")	7.8	3.4	3.63	5.1	5.9	12.45	1	9.8	-	-	8.1	0.29
RS38-1	12,70 (1/2")	7.8	4.8	3.63	6	7.1	14.1	1.1	9.8	-	-	8.1	0.35
RS41-1	12,70 (1/2")	7.77	6.38	3.59	6.75	7.95	15.1	1.25	9.8	-	7.4	10.3	0.41
RS40-1	12,70 (1/2")	7.92	7.95	3.97	8.25	9.95	17.9	1.5	12	-	15.2	17.7	0.64
RS40-2					15.45	17.15	33.5			14.4	30.4	35.3	1.27
RS40-3					22.65	24.15	47.9			14.4	45.6	53	1.9
RS40-4					29.9	31.3	62.3			14.4	-	70.6	2.53
RS50-1	15,875 (5/8")	10.16	9.53	5.09	10.3	11.9	22.5	2	15	-	24	28.4	1.04
RS50-2					19.35	21.15	41.8			18.1	48	56.9	2.07
RS50-3					28.4	30.2	59.9			18.1	72	85.3	3.09
RS50-4					37.45	39.25	78.1			18.1	-	114	4.11
RS60-1	19,05 (3/4")	11.91	12.7	5.96	12.85	14.75	28.2	2.4	18.1	-	34.2	40.2	1.53
RS60-2					24.25	26.25	52.6			22.8	68.4	80.4	3.04
RS60-3					35.65	38.15	75.5			22.8	102.6	121	4.54
RS60-4					47.05	49.55	98.3			22.8	-	161	6.04
RS80-1	25,40 (1")	15.88	15.88	7.94	16.25	19.25	36.6	3.2	24.1	-	61.2	71.6	2.66
RS80-2					30.9	33.9	67.5			29.3	122.4	143	5.27
RS80-3					45.6	48.5	96.9			29.3	183.6	215	7.89
RS80-4					60.25	63.25	126.3			29.3	-	286	10.5
RS100-1	31,75 (1 1/4")	19.05	19.05	9.54	19.75	22.85	43.7	4	30.1	-	95.4	107	3.99
RS100-2					37.7	40.8	81.5			35.8	190.8	214	7.85
RS100-3					55.65	58.75	117.3			35.8	286.2	321	11.77
RS100-4					73.55	76.65	153.1			35.8	-	428	15.7
RS120-1	38,10 (1 1/2")	22.23	25.4	11.11	24.9	28.9	55	4.8	36.2	-	137.1	148	5.93
RS120-2					47.6	51.6	103.2			45.4	274.2	296	11.7
RS120-3					70.4	74.4	148.6			45.4	411.3	444	17.53
RS120-4					93.1	97.1	194			45.4	-	592	23.36
RS140-1	44,45 (1 3/4")	25.4	25.4	12.71	26.9	31.7	59.5	5.6	42.2	-	185.9	193	7.49
RS140-2					51.35	56.15	112.3			48.9	371.8	386	14.83
RS140-3					75.85	80.75	161.3			48.9	557.7	580	22.2
RS160-1					31.85	36.85	70.2			-	244.6	255	10.1
RS160-2	50,80 (2")	28.58	31.75	14.29	61.15	66.15	132.2	6.4	48.2	58.5	489.2	510	20.04
RS160-3					90.45	95.45	190.7			58.5	733.8	765	30.02
RS180-1					35.65	42.45	80.6			-	308.2	336	13.45
RS180-2	57,15 (2 1/4")	35.71	35.72	17.46	68.75	75.35	151.1	7.15	54.2	65.8	616.4	673	26.52
RS180-3					101.7	108.5	216.9			65.8	924.6	1010	38.22
RS200-1					39	44.8	87.3			-	381.7	427	16.49
RS200-2	63,50 (2 1/2")	39.68	38.1	19.85	74.85	80.65	161.2	8	60.3	71.6	763.4	853	32.63
RS200-3					110.75	116.45	233			71.6	1145.1	1280	49.02
RS240-1					76,20 (3")	47.63	47.63			23.81	47.9	55.5	106.7
RS240-2	91.9	99.4	198.4	87.8				1100.8	1250		48.1		

Note:

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.