

2. Synchronous Belt (Rubber/Polyurethane) Product Introduction

The synchronous belts are belts for synchronous power transmission that combine the features of gears, chains, and flat belts. They are available in abundant types and sizes and are therefore easy to design for a wide range of applications from light duty to heavy duty. They are available in synthetic rubber type and polyurethane type (Bancollan); select them based on their respective features.

(1) Synchronous Belt (rubber)

Features

■ Accurate power transmission

The belt and pulleys mesh accurately and therefore provide revolutions and the amount of movement as calculated.

■ Economical power transmission

- No metal-to-metal contact eliminates the necessity for lubrication devices.
- As high initial tension is unnecessary, the bearing and motor can be miniaturized.

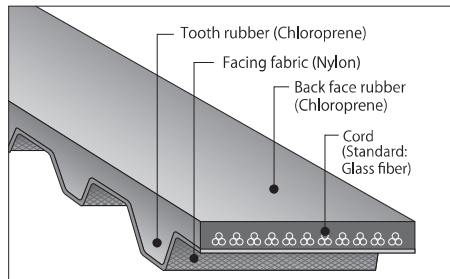
■ Wide range of operating conditions

In addition to the standard specifications, we manufacture the following special specification synchronous belts.

- Oil-resistant synchronous belt (when the belt is used where it is subject to a large amount of oil)
- Heat-resistant synchronous belt (when the belt is used at high temperatures from 90°C to 120°C)
- High-electrical-resistance synchronous belt (when insulation of 100 MΩ or more is required)

Structure

(1) Synchronous Belt (rubber)



(2) Bancollan Synchronous Belt (polyurethane)

Features

■ Resistant to oil and ozone

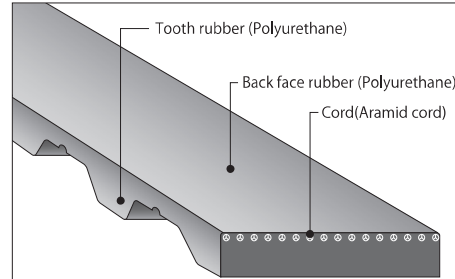
Non-occurrence of swelling by oil and of cracking by ozone makes the belt most suitable for the following applications.

- Applications in which the oil from gears and bearings adhere to the belt, such as metal working machines and printing machines
- Applications that involve ozone generation, such as optical machines, copiers, and developers

■ Clean power transmission and conveyance

The beautiful color and the non-dispersion of rubber pieces allow sections around the belt to be kept clean. The belt is suitable for OA equipment and food packaging machines.

(2) Bancollan Synchronous Belt (polyurethane)



*Glass fiber cords are also available; please contact us.

Belt dimensions and indication method

(1) Synchronous Belt (rubber)

Belt type	Dimension (mm)	Belt indication method
Type MXL		B 250 MXL 6.4 Belt No. of teeth of belt (250 teeth: 508.0 mm) Belt type (Type MXL) Belt width (6.4mm)
Type XXL		60 XXL 4.8 No. of teeth of belt (60 teeth: 190.5 mm) Belt type (Type XXL) Belt width (4.8mm)
Type XL		250 XL 025 G Belt nominal length (25 inches: 635 mm) Belt type (Type XL) Belt nominal width (0.25 inches: 6.4 mm) Cord symbol
Type L		300 L 100 G Belt nominal length (30 inches: 762 mm) Belt type (Type L) Belt nominal width (1.0 inches: 25.4 mm) Cord symbol
Type H		600 H 200 G Belt nominal length (60 inches: 1524 mm) Belt type (Type H) Belt nominal width (2.0 inches: 50.8 mm) Cord symbol
Type XH		700 XH 400 G Belt nominal length (70 inches: 1778 mm) Belt type (Type XH) Belt nominal width (4.0 inches: 101.6 mm) Cord symbol
Type XXH		1200 XXH 600 G Belt nominal length (120 inches: 3048 mm) Belt type (Type XXH) Belt nominal width (6.0 inches: 152.4 mm) Cord symbol

Synchronous Belt (Rubber/Polyurethane) standard lengths

Type XXL Pitch: 3.175 mm

Belt nominal length	Pitch length (mm)	No. of teeth	R	U
51XXL	161.93	51	●	-
80XXL	254.00	80	●	-
100XXL	317.50	100	●	-
103XXL	327.03	103	●	-
104XXL	330.20	104	●	-
105XXL	333.38	105	●	-
114XXL	361.95	114	●	-
115XXL	365.13	115	●	-
126XXL	400.50	126	●	-
150XXL	476.25	150	●	-
153XXL	485.78	153	●	-
154XXL	488.95	154	●	-
156XXL	495.30	156	●	-
160XXL	508.00	160	●	-
162XXL	514.35	162	●	-
163XXL	517.53	163	●	-
168XXL	533.40	168	●	-
173XXL	549.28	173	●	-
220XXL	698.50	220	●	-
231XXL	733.43	231	●	-
321XXL	1019.18	321	●	-
379XXL	1203.33	379	●	-

Type XL Pitch: 5.080 mm

Belt nominal length	Pitch length (mm)	No. of teeth	R	U
50XL	127.00	25	●	-
60XL	152.40	30	●	-
64XL	162.56	32	●	-
68XL	172.72	34	●	-
*70XL	177.80	35	●	-
72XL	182.88	36	●	-
74XL	187.96	37	●	-
76XL	193.04	38	●	-
78XL	198.12	39	●	-
*80XL	203.20	40	●	-
84XL	213.36	42	●	-
88XL	223.52	44	●	-
*90XL	228.60	45	●	-
92XL	233.68	46	●	-
94XL	238.76	47	●	-
96XL	243.84	48	●	-
98XL	248.92	49	●	-
*100XL	254.00	50	●	-
102XL	259.08	51	●	-
104XL	264.16	52	●	-
106XL	269.24	53	●	-
108XL	274.32	54	●	-
*110XL	279.40	55	●	-
112XL	284.48	56	●	-
114XL	289.56	57	●	-
116XL	294.64	58	●	-
118XL	299.72	59	●	-
*120XL	304.80	60	●	-
122XL	309.88	61	●	-
124XL	314.96	62	●	-
126XL	320.04	63	●	-
128XL	325.12	64	●	-
*130XL	330.20	65	●	-
132XL	335.28	66	●	-
134XL	340.36	67	●	-
136XL	345.44	68	●	-
138XL	350.52	69	●	-
*140XL	355.60	70	●	-
142XL	360.68	71	●	-
144XL	365.76	72	●	-
146XL	370.84	73	●	-
148XL	375.92	74	●	-
*150XL	381.00	75	●	-
152XL	386.08	76	●	-
154XL	391.16	77	●	-
156XL	396.24	78	●	-
158XL	401.32	79	●	-
*160XL	406.40	80	●	-
162XL	411.48	81	●	-
164XL	416.56	82	●	-
166XL	421.64	83	●	-
168XL	426.72	84	●	-
*170XL	431.80	85	●	-
172XL	436.88	86	●	-
174XL	441.96	87	●	-
176XL	447.04	88	●	-
178XL	452.12	89	●	-
*180XL	457.20	90	●	-
182XL	462.28	91	●	-
184XL	467.36	92	●	-
188XL	477.52	94	●	-
*190XL	482.60	95	●	-
194XL	492.76	97	●	-
196XL	497.84	98	●	-
198XL	502.92	99	●	-
*200XL	508.00	100	●	-
202XL	513.08	101	●	-
206XL	523.24	103	●	-
208XL	528.32	104	●	-
*210XL	533.40	105	●	-
212XL	538.48	106	●	-
214XL	543.56	107	●	-
216XL	548.64	108	●	-
*220XL	558.80	110	●	-
222XL	563.88	111	●	-
224XL	568.96	112	●	-
228XL	579.12	114	●	-
*230XL	584.20	115	●	-
234XL	594.36	117	●	-
*240XL	609.60	120	●	-

Type XL Pitch: 5.080 mm

Belt nominal length	Pitch length (mm)	No. of teeth	R	U
244XL	619.75	122	●	-
248XL	629.92	124	●	-
*250XL	635.00	125	●	-
254XL	645.16	127	●	-
*260XL	660.40	130	●	-
262XL	665.48	131	●	-
266XL	675.64	133	●	-
270XL	685.80	135	●	-
276XL	701.04	138	●	-
280XL	711.20	140	●	-
282XL	716.28	141	●	-
290XL	736.60	145	●	-
300XL	762.00	150	●	-
310XL	787.40	155	●	-
314XL	797.56	157	●	-
320XL	812.80	160	●	-
322XL	817.88	161	●	-
330XL	838.20	165	●	-
340XL	863.60	170	●	-
344XL	873.76	172	●	-
348XL	883.92	174	●	-
352XL	894.08	176	●	-
356XL	904.24	178	●	-
360XL	914.40	180	●	-
364XL	924.00	182	●	-
370XL	939.80	185	●	-
372XL	944.88	186	●	-
376XL	955.04	188	●	-
384XL	975.36	192	●	-
386XL	980.44	193	●	-
388XL	985.52	194	●	-
390XL	990.60	195	●	-
396XL	1005.84	198	●	-
400XL	1016.00	200	●	-
408XL	1036.32	204	●	-
414XL	1015.56	207	●	-
424XL	1076.96	212	●	-
430XL	1092.20	215	●	-
450XL	1143.00	225	●	-
456XL	1158.24	228	●	-
460XL	1168.40	230	●	-
470XL	1193.80	235	●	-
478XL	1214.12	239	●	-
480XL	1219.20	240	●	-
490XL	1244.60	245	●	-
496XL	1259.84	248	●	-
510XL	1295.40	255	●	-
512XL	1300.48	256	●	-
564XL	1432.56	282	●	-
592XL	1503.68	296	●	-
608XL	1544.32	304	●	-
630XL	1600.20	315	●	-
638XL	1620.52	319	●	-
670XL	1701.80	335	●	-
686XL	1742.44	343	●	-
730XL	1854.20	365	●	-
828XL	2103.12	414	●	-
860XL	2184.40	430	●	-
888XL	2255.52	444	●	-
900XL	2286.00	450	●	-
908XL	2306.32	454	●	-
914XL	2321.56	457	●	-
926XL	2352.04	463	●	-
1014XL	2575.56	507	●	-
1020XL	2590.80	510	●	-

R: Rubber
U: Polyurethane

Synchronous Belt (Rubber/Polyurethane) standard lengths

Type L Pitch: 9.525 mm

Belt nominal length	Pitch length (mm)	No. of teeth	R	U
98L	247.65	26	●	-
109L	276.23	29	●	-
*124L	314.33	33	●	-
135L	342.90	36	●	-
*150L	381.00	40	●	-
165L	419.10	44	●	-
169L	428.63	45	●	-
172L	438.15	46	●	-
*187L	476.25	50	●	-
203L	514.35	54	●	-
*210L	533.40	56	●	-
218L	552.45	58	●	-
*225L	571.50	60	●	-
240L	609.60	64	●	-
248L	628.65	66	●	-
*255L	647.70	68	●	-
263L	666.75	70	●	-
*270L	685.80	72	●	-
277L	704.85	74	●	-
*285L	723.90	76	●	-
*300L	762.00	80	●	-
304L	771.53	81	●	-
315L	800.10	84	●	-
320L	809.63	85	●	-
*322L	819.15	86	●	-
334L	847.73	89	●	-
337L	857.25	90	●	-
*345L	876.30	92	●	-
360L	914.40	96	●	-
*367L	933.45	98	●	-
375L	952.50	100	●	-
382L	971.55	102	●	-
*390L	990.60	104	●	-
394L	1000.13	105	●	-
*420L	1066.80	112	●	-
427L	1085.85	114	●	-
436L	1104.90	116	●	-
439L	1114.43	117	●	-
446L	1133.48	119	●	-
*450L	1143.00	120	●	-
465L	1181.10	124	●	-
*480L	1219.20	128	●	-
*510L	1295.40	136	●	-
514L	1304.93	137	●	-
525L	1333.50	140	●	-
*540L	1371.60	144	●	-
548L	1390.65	146	●	-
581L	1476.38	155	●	-
*600L	1524.00	160	●	-
605L	1533.53	161	●	-
619L	1571.63	165	●	-
630L	1600.20	168	●	-
●640L	1619.25	170	●	-
653L	1657.35	174	●	-
660L	1676.40	176	●	-
697L	1771.65	186	●	-
728L	1847.85	194	●	-
731L	1857.38	195	●	-
●767L	1952.63	205	●	-
780L	1981.20	208	●	-
788L	2000.25	210	●	-
806L	2047.88	215	●	-
855L	2171.70	228	●	-
863L	2190.75	230	●	-
881L	2238.38	235	●	-
915L	2324.10	244	●	-
919L	2333.63	245	●	-
938L	2381.25	250	●	-
1294L	3286.13	345	●	-

(Remarks)
1) For Type L with the ● mark, check the length and the number of teeth.
2) * indicates RMA standard sizes.

Type H Pitch: 12.7 mm

Belt nominal length	Pitch length (mm)	No. of teeth	R	U
185H	469.90	37	●	-
225H	571.50	45	●	-
230H	584.20	46	●	-
*240H	609.60	48	●	-
245H	622.30	49	●	-
*270H	685.80	54	●	-
280H	711.20	56	●	-
*300H	762.00	60	●	-
310H	787.40	62	●	-
315H	800.10	63	●	-
320H	812.80	64	●	-
*330H	838.20	66	●	-
340H	863.60	68	●	-
350H	889.00	70	●	-
*360H	914.40	72	●	-
370H	939.80	74	●	-
375H	952.50	75	●	-
*390H	990.60	78	●	-
400H	1016.00	80	●	-
410H	1041.40	82	●	-
*420H	1066.80	84	●	-
430H	1092.20	86	●	-
*450H	1143.00	90	●	-
465H	1181.10	93	●	-
*480H	1219.20	96	●	-
490H	1244.60	98		