

[Technical Calculations] Selection of Timing Belts 3 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at: http://fawos.misumi.jp/FA_WEB/pulley_sea/

Table 18. Reference Transmission Capacity of MXL Ps -Nominal Width of Belts 025(6.4mm)- (W)

Rotary Speed of Small Pulley (rpm)	No. of Teeth of Small Pulley	Diameter of the Pitch Circle (mm)														
		12	14	15	16	18	20	22	24	25	26	28	30	32	36	40
		7.76	9.06	9.70	10.35	11.64	12.94	14.23	15.52	16.17	16.82	18.11	19.40	20.70	23.29	25.97
950	9.0	10.5	11.3	12.0	13.5	15.0	16.5	18.0	18.8	19.6	21.1	22.6	24.1	27.1	30.1	
1160	11.0	12.8	13.8	14.7	16.5	18.4	20.2	22.0	23.0	23.9	25.7	27.6	29.4	33.1	36.7	
1425		15.8	16.9	18.0	20.3	22.6	24.8	27.1	28.2	29.3	31.6	33.9	36.1	40.6	45.1	
1750		19.4	20.8	22.2	24.9	27.7	30.5	33.3	34.7	36.0	38.8	41.6	44.3	49.9	55.4	
2850		33.9	36.1	40.6	45.1	49.6	54.1	58.6	63.1	67.6	72.1	81.0	90.0			
3450		41.0	43.7	49.2	54.6	60.1	65.5	68.2	70.9	76.3	81.7	97.9	108.6			
100	0.9	1.1	1.1	1.2	1.4	1.5	1.7	1.9	1.9	2.0	2.2	2.3	2.5	2.8	3.1	
200	1.9	2.2	2.3	2.5	2.8	3.1	3.4	3.8	3.9	4.1	4.4	4.7	5.0	5.7	6.3	
300	2.8	3.3	3.5	3.8	4.2	4.7	5.2	5.7	5.9	6.1	6.6	7.1	7.6	8.5	9.5	
400	3.8	4.4	4.7	5.0	5.7	6.3	6.9	7.6	7.9	8.2	8.8	9.5	10.1	11.4	12.6	
500	4.7	5.5	5.9	6.3	7.1	7.9	8.7	9.5	9.9	10.3	11.1	11.9	12.6	14.2	15.8	
600	5.7	6.6	7.1	7.6	8.5	9.5	10.4	11.4	11.9	12.3	13.3	14.2	15.2	17.1	19.0	
700	6.6	7.7	8.3	8.8	10.0	11.1	12.2	13.3	13.8	14.4	15.5	16.6	17.7	19.9	22.2	
800	7.6	8.8	9.5	10.1	11.4	12.6	13.9	15.2	15.8	16.5	17.7	19.0	20.3	22.8	25.3	
900	8.5	10.0	10.7	11.4	12.8	14.2	15.7	17.1	17.8	18.5	19.9	21.4	22.8	25.7	28.5	
1000	9.5	11.1	11.9	12.6	14.2	15.8	17.4	19.0	19.8	20.6	22.2	23.8	25.3	28.5	31.7	
1100	10.4	12.2	13.0	13.9	15.7	17.4	19.2	20.9	21.8	22.6	24.4	26.1	27.9	31.4	34.8	
1200	11.4	13.3	14.2	15.2	17.1	19.0	20.9	22.8	23.8	24.7	26.6	28.5	30.4	34.2	38.0	
1300		14.4	15.4	16.5	18.5	20.6	22.6	24.7	25.7	26.8	28.8	30.9	32.9	37.1	41.2	
1400		15.5	16.6	17.7	19.9	22.2	24.4	26.6	27.7	28.8	31.0	33.3	35.5	39.9	44.3	
1500		16.6	17.8	19.0	21.4	23.8	26.1	28.5	29.7	30.9	33.3	35.6	38.0	42.8	47.5	
1600		17.7	19.0	20.3	22.8	25.3	27.9	30.4	31.7	32.9	35.5	38.0	40.5	45.6	50.7	
1700		18.8	20.2	21.5	24.2	26.9	29.6	32.3	33.7	35.0	37.7	40.4	43.1	48.5	53.8	
1800		19.9	21.4	22.8	25.7	28.5	31.4	34.2	35.6	37.1	39.9	42.8	45.6	51.3	57.0	
2000		23.8	25.3	28.5	31.7	34.8	38.0	39.6	41.2	44.3	47.5	50.7	57.0	63.3		
2200		26.1	27.9	31.4	34.8	38.3	41.8	43.6	45.3	48.8	52.2	55.7	62.7	69.6		
2400		28.5	30.4	34.2	38.0	41.8	45.6	47.5	49.4	53.2	57.0	60.8	68.3	75.9		
2600		30.9	32.9	37.1	41.2	45.3	49.4	51.5	53.5	57.6	61.7	65.8	74.0	82.1		
2800		35.5	39.9	44.3	48.8	53.2	55.4	57.6	62.0	66.4	70.8	79.6	88.4			
3000		38.0	42.8	47.5	52.2	57.0	59.3	61.7	66.4	71.2	75.9	85.3	94.6			
3200		40.5	45.6	50.7	55.7	60.8	63.3	65.8	70.8	75.9	80.9	90.9	100.9			
3400		43.1	48.5	53.8	59.2	64.5	67.2	69.9	75.2	80.6	85.9	96.5	107.1			
3600		45.6	51.3	57.0	62.7	68.3	71.2	74.0	79.6	85.3	90.9	102.1	113.3			
3800		54.1	60.1	66.1	72.1	75.1	78.1	84.0	90.0	95.9	107.7	119.5				
4000		57.0	63.3	69.6	75.9	79.0	82.1	88.4	94.6	100.9	113.3	125.6				
4200		59.8	66.4	73.0	79.6	82.9	86.2	92.8	99.3	105.8	118.8	131.8				
4400		62.7	69.6	76.5	83.4	86.8	90.3	97.1	104.0	110.8	124.4	137.9				
4600		65.5	72.7	79.9	87.1	90.7	94.3	101.5	108.6	115.8	129.9	144.0				
4800		68.3	75.9	83.4	90.9	94.6	98.4	105.8	113.3	120.7	135.4	150.0				

*Values in the table above are for nominal belt width 025(6.4mm). For other belt widths, those values should be multiplied by the width correction coefficient, Kb, shown in Table 15.

Table 19. Reference Transmission Capacity of XL Ps -Nominal Width of Belts 100(25.4mm)- (kW)

Rotary Speed of Small Pulley (rpm)	No. of Teeth of Small Pulley	Diameter of the Pitch Circle (mm)															
		10	11	12	14	15	16	18	19	20	21	22	24	25	26	28	30
		16.17	17.79	19.40	22.64	24.26	25.87	29.11	30.72	32.34	33.96	35.57	38.81	40.43	42.04	45.28	48.51
950	0.14	0.16	0.17	0.20	0.21	0.23	0.26	0.27	0.29	0.30	0.32	0.35	0.36	0.38	0.41	0.43	
1160	0.17	0.19	0.21	0.25	0.26	0.28	0.32	0.33	0.35	0.37	0.39	0.42	0.44	0.46	0.50	0.53	
1425		0.26	0.30	0.32	0.35	0.39	0.41	0.43	0.46	0.48	0.52	0.54	0.57	0.61	0.65		
1750		0.32	0.37	0.40	0.43	0.48	0.51	0.53	0.56	0.59	0.64	0.67	0.69	0.75	0.80		
2850		0.52	0.61	0.65	0.67	0.78	0.82	0.87	0.91	0.95	1.04	1.08	1.12	1.21	1.29		
3450		0.63	0.74	0.79	0.84	0.94	1.00	1.05	1.10	1.15	1.25	1.30	1.35	1.45	1.55		
100	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04		
200	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09		
300	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.13		
400	0.06	0.06	0.07	0.08	0.09	0.09	0.11	0.11	0.12	0.12	0.13	0.14	0.15	0.16	0.17		
500	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.19	0.20	0.21	0.23		
600	0.09	0.10	0.11	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.22	0.23	0.24	0.25		
700	0.10	0.11	0.12	0.15	0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	0.30		
800	0.12	0.13	0.14	0.17	0.18	0.19	0.22	0.23	0.24	0.25	0.27	0.29	0.30	0.32	0.34		
900	0.13	0.15	0.16	0.19	0.20	0.22	0.25	0.26	0.27	0.29	0.30	0.33	0.34	0.36	0.38		
1000	0.15	0.16	0.18	0.21	0.23	0.24	0.27	0.29	0.30	0.32	0.33	0.37	0.38	0.40	0.43		
1100	0.16	0.18	0.20	0.23	0.25	0.27	0.30	0.32	0.33	0.35	0.37	0.40	0.42	0.44	0.47		
1200	0.18	0.20	0.22	0.25	0.27	0.29	0.33	0.35	0.37	0.38	0.40	0.44	0.46	0.48	0.51		
1300		0.24	0.28	0.30	0.32	0.36	0.38	0.40	0.42	0.44	0.48	0.50	0.52	0.56	0.59		
1400		0.25	0.30	0.32	0.34	0.38	0.41	0.43	0.45	0.47	0.51	0.53	0.56	0.60	0.64		
1500		0.27	0.32	0.34	0.37	0.41	0.43	0.46	0.48	0.50	0.55	0.57	0.59	0.64	0.69		
1600		0.29	0.34	0.37	0.39	0.44	0.46	0.49	0.51	0.54	0.59	0.61	0.63	0.68	0.73		
1700		0.31	0.36	0.39	0.41	0.47	0.49	0.52	0.54	0.57	0.62	0.65	0.67	0.73	0.78		
1800		0.33	0.38	0.41	0.44	0.49	0.52	0.55	0.58	0.60	0.66	0.69	0.71	0.77	0.82		
2000		0.37	0.43	0.46	0.49	0.55	0.58	0.61	0.64	0.67	0.73	0.76	0.79	0.85	0.91		
2200		0.40	0.47	0.50	0.54	0.60	0.64	0.67	0.70	0.74	0.80	0.84	0.87	0.94	1.00		
2400		0.44	0.51	0.55	0.59	0.66	0.70	0.73	0.77	0.80	0.88	0.91	0.95	1.02	1.09		
2600		0.48	0.56	0.59	0.63	0.71	0.75	0.79	0.83	0.87	0.95	0.99	1.03	1.10	1.18		
2800		0.51	0.60	0.64	0.68	0.77	0.81	0.85	0.89	0.94	1.02	1.06	1.10	1.19	1.27		
3000		0.55	0.64	0.69	0.73	0.82	0.87	0.91	0.96	1.00	1.09	1.14	1.18	1.27	1.35		
3200		0.59	0.68	0.73	0.78	0.88	0.92	0.97	1.02	1.07	1.16	1.21	1.26	1.35	1.44		
3400		0.62	0.73	0.78	0.83	0.93	0.98	1.03	1.08	1.13	1.23	1.28	1.33	1.43	1.53		
3600		0.66	0.77	0.82	0.88	0.98	1.04	1.09	1.14	1.20	1.30	1.35	1.41	1.51	1.61		
3800		0.87	0.92	1.04	1.09	1.15	1.21	1.26	1.37	1.43	1.48	1.59	1.69				
4000		0.91	0.97	1.09	1.15	1.21	1.27	1.33	1.44	1.50	1.55	1.67	1.78				
4200		0.96	1.02	1.14	1.21	1.27	1.33	1.39	1.51	1.57	1.63	1.74	1.86				
4400		1.00	1.07	1.20	1.26	1.33	1.39	1.45	1.58	1.64	1.70	1.82	1.94				
4600		1.05	1.12	1.25	1.32	1.38	1.45	1.52	1.64	1.71	1.77	1.90	2.02				
4800		1.09	1.16	1.30	1.37	1.44	1.51										