

# 【技术计算】 同步齿形带的选型方法5

## 传动容量表

表21. T5的基准传动容量 Pr 皮带宽度10mm时 (W)

小带轮 转速(rpm)	小带轮齿数 节圆直径(mm)								
	12	14	16	18	20	22	24	28	30
1160	98.5	114.9	131.3	147.7	164.1	180.5	196.9	229.7	246.1
1750	134.3	156.7	179.1	201.5	223.9	246.3	268.7	313.5	335.9
3500	222.5	259.6	296.7	333.7	370.8	407.9	445.0	519.1	556.2
100	10.7	12.4	14.2	16.0	17.8	19.5	21.3	24.9	26.6
200	20.8	24.3	27.7	31.2	34.7	38.2	41.6	48.6	52.0
300	30.5	35.6	40.7	45.7	50.8	55.9	61.0	71.2	76.2
400	39.7	46.4	53.0	59.6	66.2	72.9	79.5	92.7	99.4
500	48.6	56.7	64.8	72.9	81.0	89.1	97.2	113.4	121.5
600	57.0	66.5	76.0	85.6	95.1	104.6	114.1	133.1	142.6
700	65.1	76.0	86.8	97.7	108.6	119.4	130.3	152.0	162.8
800	72.9	85.0	97.2	109.3	121.5	133.6	145.8	170.1	182.2
900	80.3	93.7	107.1	120.5	133.9	147.3	160.7	187.5	200.9
1000	87.5	102.1	116.7	131.3	145.9	160.5	175.0	204.2	218.8
1100	94.4	110.2	125.9	141.6	157.4	173.1	188.9	220.3	236.1
1200	101.1	117.9	134.8	151.6	168.5	185.3	202.2	235.9	252.7
1300	107.5	125.5	143.4	161.3	179.2	197.2	215.1	250.9	268.9
1400	113.8	132.8	151.7	170.7	189.7	208.6	227.6	265.5	284.5
1500	119.9	139.8	159.8	179.8	200.0	219.2	238.7	279.7	299.7
1600	125.8	146.7	167.7	188.6	209.6	230.6	251.5	293.4	314.4
1700	131.5	153.4	175.4	197.3	219.2	241.1	263.0	306.9	328.8
1800	137.1	160.0	182.9	205.7	228.6	251.4	274.3	320.0	342.8
1900	142.6	166.4	190.2	214.0	237.7	261.5	285.3	332.8	356.6
2000	148.0	172.7	197.4	222.1	246.7	271.4	296.1	345.4	370.1
2200	156.6	185.0	211.4	237.8	264.3	290.7	317.8	370.0	396.4
2400	165.8	196.9	225.1	253.2	281.4	309.5	337.6	395.9	422.0
2600	175.8	208.7	238.5	268.3	298.1	327.9	357.7	417.3	447.1
2800	185.7	220.2	251.6	283.1	314.5	346.0	377.4	440.4	471.8
3000	195.5	231.6	264.6	297.7	330.8	363.9	397.0	463.1	496.2
3200	205.2	242.8	277.5	312.2	346.9	381.6	416.3	485.7	520.4
3400	217.7	254.0	290.3	326.6	362.9	399.2	435.5	508.0	544.3
3600	227.2	265.1	303.0	340.8	378.7	416.6	454.4	530.2	568.1
3800	236.6	276.0	315.5	354.9	394.3	433.8	473.2	552.1	591.5
4000	245.8	286.8	327.7	368.7	409.7	450.7	491.6	573.6	614.5
4200	254.8	297.3	339.7	382.2	424.7	467.2	509.6	594.6	637.0
4400	263.5	307.4	351.4	395.3	439.2	483.1	527.1	614.9	658.8
4600	271.9	317.2	362.5	407.8	453.1	498.4	543.7	634.4	679.7
4800	279.7	326.4	373.0	419.6	466.2	512.8	559.5	652.7	699.3
5000	287.0	334.8	382.7	430.5	478.3	526.2	574.0	669.7	717.5
5500			402.2	452.4	502.7	553.0	603.2	703.8	754.1
6000			412.1	463.6	515.1	566.6	618.1	721.1	772.6
6500			422.2	475.2	527.2	581.2	633.2	738.3	790.3
7000			385.3	433.5	481.7	529.8	578.0	674.3	722.5
7500			337.7	379.9	422.1	464.3	506.6	591.0	633.2
8000				290.8	323.1	355.5	387.8	452.4	484.7
8500				157.7	175.3	192.8	210.3	245.4	262.9

\* 由于在 [ ] 符号的范围内耐久时间减少，因此请尽可能避免在这一区域内使用。  
 \* 由于上表所示为皮带公称宽度10(10mm)时的情况，因此，皮带宽度不同时，请乘以表7的宽度补偿系数Kb。

表22. T10的基准传动容量 Pr 皮带宽度10mm时 (W)

小带轮 转速(rpm)	小带轮齿数 节圆直径(mm)															
	12	14	16	18	20	22	24	26	28	30	32	36	40	44	48	
870	254.9	297.4	339.9	382.4	424.9	467.4	509.9	552.4	594.9	637.4	679.9	722.4	764.9	807.4	850.0	
1160	321.2	374.8	428.3	481.8	535.3	588.8	642.3	695.8	749.3	802.8	856.3	909.8	963.3	1016.8	1070.3	
1750	438.3	511.3	584.4	657.4	730.5	803.5	876.6	949.6	1022.7	1095.7	1168.8	1241.9	1315.0	1388.1	1461.2	
3500	725.8	848.8	971.8	1094.8	1217.8	1340.8	1463.8	1586.8	1709.8	1832.8	1955.8	2078.8	2201.8	2324.8	2447.8	
100	34.8	40.6	46.4	52.2	57.9	63.7	69.5	75.3	81.1	86.9	92.7	98.5	104.3	110.1	115.9	
200	67.9	79.2	90.5	101.9	113.2	124.5	135.8	147.1	158.4	169.7	181.0	192.3	203.6	214.9	226.2	
300	99.5	116.1	132.7	149.3	165.9	182.4	199.0	215.6	232.2	248.8	265.4	282.0	298.6	315.2	331.8	
400	129.7	151.3	172.9	194.5	216.1	237.7	259.3	280.9	302.5	324.1	345.7	367.3	388.9	410.5	432.1	
500	158.5	184.9	211.3	237.7	264.1	290.5	316.9	343.3	369.7	396.1	422.5	448.9	475.3	501.7	528.1	
600	186.1	217.1	248.1	279.1	310.1	341.1	372.1	403.1	434.1	465.1	496.1	527.1	558.1	589.1	620.1	
700	212.5	247.9	283.3	318.7	354.1	389.5	424.9	460.3	495.7	531.1	566.5	601.9	637.3	672.7	708.1	
800	237.8	277.5	317.1	356.7	396.4	436.0	475.6	515.3	554.9	594.5	634.2	673.8	713.4	753.0	792.6	
900	262.1	305.8	349.5	393.2	436.9	480.6	524.3	568.0	611.7	655.4	699.1	742.8	786.5	830.2	873.9	
1000	285.5	333.1	380.7	428.3	475.9	523.5	571.1	618.7	666.2	713.8	761.4	809.0	856.6	904.2	951.8	
1100	308.1	359.4	410.8	462.1	513.5	564.8	616.2	667.5	718.8	770.2	821.5	872.8	924.1	975.4	1026.7	
1200	329.8	384.8	439.8	494.7	549.7	604.7	659.7	714.6	769.6	824.6	879.6	934.6	989.6	1044.6	1099.6	
1300	350.9	409.4	467.8	526.3	584.8	643.3	701.8	760.3	818.8	877.3	935.8	994.3	1052.8	1111.3	1169.8	
1400	371.3	433.1	495.0	556.9	618.8	680.7	742.6	804.5	866.4	928.3	990.2	1052.1	1114.0	1175.9	1237.8	
1500	391.0	456.2	521.4	586.6	651.7	716.9	782.1	847.3	912.4	977.6	1042.8	1108.0	1173.2	1238.4	1303.6	
1600	410.3	478.7	547.1	615.4	683.8	752.2	820.6	889.0	957.4	1025.8	1094.2	1162.6	1231.0	1299.4	1367.8	
1700	429.1	500.6	572.1	643.6	715.1	786.6	858.1	929.6	1001.1	1072.6	1144.1	1215.6	1287.1	1358.6	1430.1	
1800	447.4	522.0	596.5	671.1	745.7	820.2	894.8	969.4	1043.9	1118.5	1193.1	1267.7	1342.2	1416.8	1491.4	
1900	465.4	542.9	620.5	698.0	775.6	853.1	930.7	1008.3	1085.9	1163.4	1240.9	1318.5	1396.1	1473.7	1551.3	
2000	483.0	563.5	643.9	724.4	804.9	885.4	965.9	1046.4	1126.9	1207.4	1287.9	1368.4	1448.9	1529.4	1609.9	
2200	517.3	603.5	689.7	776.0	862.2	948.4	1034.6	1120.8	1207.0	1293.2	1379.4	1465.6	1551.8	1638.0	1724.2	
2400	550.7	642.5	734.3	826.1	917.9	1009.7	1101.5	1193.3	1285.1	1376.9	1468.7	1560.5	1652.3	1744.1	1835.9	
2600	583.5	680.7	777.9	875.2	972.4	1069.7	1166.9	1264.1	1361.4	1458.6	1555.9	1653.2	1750.4	1847.7	1944.9	
2800	615.7	718.3	820.9	923.5	1026.1	1128.7	1231.3	1333.9	1436.5	1539.1	1641.7	1744.3	1846.9	1949.5	2052.1	
3000	755.4	863.4	971.3	1079.2	1187.1	1295.0	1402.9	1510.8	1618.7	1726.6	1834.5	1942.4	2050.3	2158.2	2266.1	
3200	792.2	905.4	1018.6	1131.8	1244.9	1358.1	1471.2	1584.3	1697.4	1810.5	1923.6	2036.7	2149.8	2262.9	2376.0	
3400	828.7	947.1	1065.5	1183.8	1302.2	1420.6	1539.0	1657.4	1775.8	1894.2	2012.6	2131.0	2249.4	2367.8	2486.2	
3600	864.8	988.4	1111.9	1235.4	1358.9	1482.5	1606.0	1729.6	1853.2	1976.7	2100.3	2223.9	2347.5	2471.1	2594.7	
3800	900.5	1029.1	1157.7	1286.4	1415.0	1543.6	1672.2	1800.9	1929.5	2058.1	2186.7	2315.3	2443.9	2572.5	2701.1	
4000	1069.2	1202.8	1336.5	1470.0	1603.7	1737.3	1871.1	2004.7	2138.4	2272.0	2405.7	2539.3	2673.0	2806.6	2940.3	
4200	1108.3	1246.9	1385.4	1523.9	1657.5	1791.1	1924.7	2058.3	2191.9	2325.5	2459.1	2592.7	2726.3	2859.9	2993.5	
4400	1146.2	1289.5	1432.8	1576.0	1719.2	1862.5	2005.9	2149.2	2292.5	2435.8	2579.1	2722.4	2865.7	3009.0	3152.3	
4600	1182.5	1330.3	1478.1	1625.8	1773.6	1921.4	2069.2	2217.0	2364.8	2512.6	2660.4	2808.2	2956.0	3103.8	3251.6	
4800	1216.7	1368.8	1520.9	1672.8	1824.9	1976.9	2128.9	2280.9	2432.9	2584.9	2736.9	2888.9	3040.9	3192.9	3344.9	
5000	1248.3	1404.3	1560.4	1716.2	1872.2	2028.3	2184.3	2340.3	2496.3	2652.3	2808.3	2964.3	3120.3	3276.3	3432.3	
5200	1276.7	1436.3	1595.9	1755.2	1914.8	2074.4	2230.4	2386.4	2542.4	2698.4	2854.4	3010.4	3166.4	3322.4	3478.4	
5400	1301.3	1463.9	1626.6	1789.0	1951.6	2114.2	2270.2	2426.2	2582.2	2738.2	2894.2	3050.2	3206.2	3362.2	3518.2	
5600	1321.2	1486.4	1651.5	1816.4	1981.5	2146.7	2302.7	2458.7	2614.7	2770.7	2926.7	3082.7	3238.7	3394.7	3550.7</	