

# Rodas Dentadas

## Formação da referência:

①      ②      ③      ④

**① - Número de carreiras**

- 1 : Simples
- 2 : Dupla
- 3 : Tripla
- 4 : Quádrupla

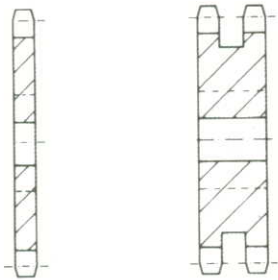
**② - Passos**

mm	Pol.	ANSI
9.525	3/8"	35
12.70	1/2"	40
15.875	5/8"	50
19.05	3/4"	60
25.40	1"	80
31.75	1.1/4"	100
38.10	1.1/2"	120
44.45	1.3/4"	140
50.80	2"	160

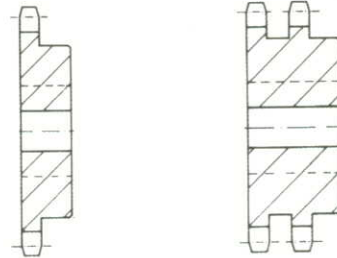
**③ - Z: Número de Dentes**

**④ - Tipo de roda dentada (ver abaixo):**

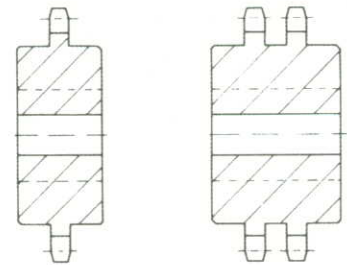
**TIPO 1**



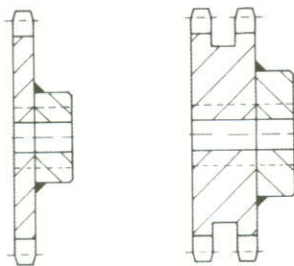
**TIPO 2**



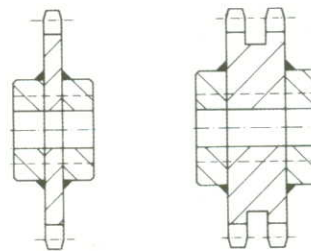
**TIPO 3**



**TIPO 4**

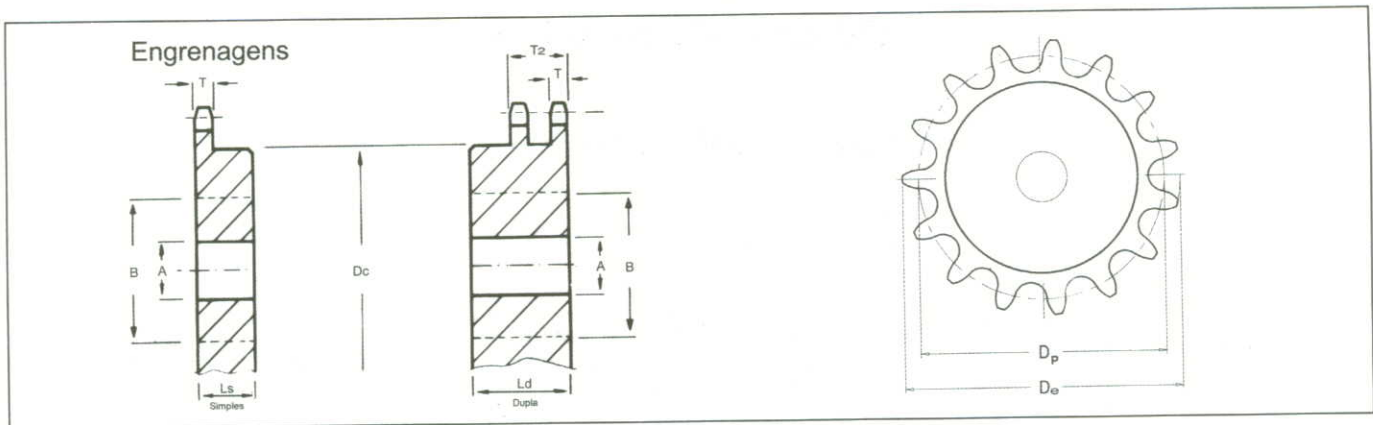


**TIPO 5**



**Exemplo:**    2      40      21      Tipo 2

2	40	21	Tipo 2
Duas carreiras	Passo 1/2"	Nº de dentes	Maciça com cubo unilateral

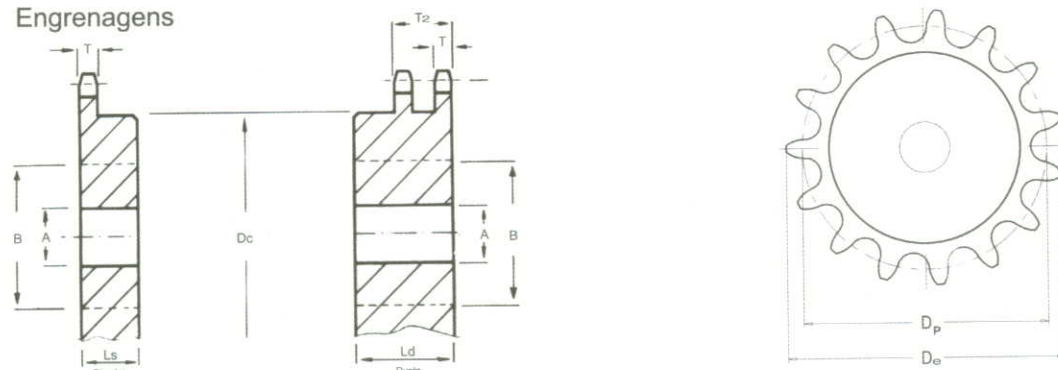


- Dp = Diâmetro primitivo (mm)      T = Largura do dente (mm)  
 De = Diâmetro externo (mm)      T2 = Conforme indicado no desenho  
 Dc = Diâmetro do cubo (mm)      Ls = Largura total da roda dentada simples (mm)  
 A = Diâmetro do furo piloto (mm)      Ld = Largura total da roda dentada dupla (mm)  
 B = Furo máx. admissível (mm)

### Dimensões conforme NORMA ANSI

Z	ANSI 35 - PASSO 3/8" T = 4.3 mm - T2 = 14.4 mm							ANSI 40 - PASSO 1/2" T = 7.2 mm - T2 = 21.6 mm							ANSI 50 - PASSO 5/8" T = 8.6 mm - T2 = 26.7 mm						
	Ambas					simp.	dupla	Ambas					simp.	dupla	Ambas					simp.	dupla
	Dp	De	Dc	A	B	Ls	Ld	Dp	De	Dc	A	B	Ls	Ld	Dp	De	Dc	A	B	Ls	Ld
9	27.85	31.88	17	SF	11	16	22	37.13	42.51	22	12	15	25	30	46.42	53.14	28	15	19	25	45
10	30.82	35.03	20	SF	13	16	22	41.10	46.71	26	12	17	25	30	51.37	58.38	33	15	22	25	45
11	33.81	38.15	23	SF	15	16	22	45.08	50.87	30	12	20	25	30	56.35	63.59	38	15	25	25	45
12	36.80	41.26	26	12	17	16	22	49.07	55.02	34	12	23	25	30	61.34	68.77	44	15	29	25	45
13	39.80	44.36	29	12	19	16	22	53.07	59.15	39	12	26	25	30	66.34	73.93	48	15	32	25	45
14	42.81	47.45	32	12	21	16	22	57.07	63.26	43	12	29	25	30	71.34	79.08	53	17.5	35	25	45
15	45.81	50.63	35	12	23	20	25	61.08	67.37	47	12	31	25	30	76.36	84.21	59	17.5	39	25	45
16	48.82	53.60	38	12	25	20	25	65.10	71.47	51	17.5	34	25	30	81.37	89.33	64	17.5	43	25	45
17	51.84	56.87	41	12	27	20	25	69.12	75.56	55	17.5	37	25	30	86.40	94.45	69	17.5	46	25	45
18	54.85	59.73	44	12	29	20	25	73.14	79.55	59	17.5	39	25	30	91.42	99.56	74	17.5	49	25	45
19	57.87	62.80	47	12	31	22	25	77.16	83.73	63	17.5	42	25	30	96.45	104.66	79	17.5	53	30	45
20	60.89	65.85	50	12	33	22	25	81.18	87.80	67	17.5	45	25	30	101.48	109.76	84	20	56	30	45
21	63.91	68.91	53	12	35	22	25	85.21	91.88	71	17.5	47	25	30	106.51	114.85	89	20	59	30	45
22	66.93	71.96	56	12	37	22	25	89.24	95.95	75	17.5	50	30	36	111.55	119.94	94	20	63	30	45
23	69.95	75.01	59	12	39	22	25	93.27	100.02	79	17.5	53	30	36	116.59	125.02	99	20	66	30	45
24	72.97	78.06	62	15	41	22	25	97.30	104.09	83	17.5	55	30	36	121.62	130.11	100	20	67	34	45
25	76.00	81.11	65	15	43	22	25	101.33	108.15	87	17.5	58	30	36	126.66	135.19	100	20	67	34	45
26	79.02	84.16	68	15	45	22	25	105.36	112.21	92	17.5	61	30	36	131.70	140.27	110	20	73	34	45
27	82.05	87.21	70	15	47	22	25	109.40	116.28	95	17.5	63	30	36	136.74	145.34	110	20	73	34	45
28	85.07	90.25	72	15	48	22	25	113.43	120.34	95	17.5	63	30	36	141.79	150.42	86	20	57	37	51
30	91.12	96.34	78	15	52	25	30	121.50	128.45	100	17.5	67	30	36	151.87	160.57	86	20	57	37	51
32	97.18	102.42	84	15	56	25	30	129.57	136.57	100	20	67	30	36	161.96	170.71	86	20	57	37	51
35	106.26	111.55	93	15	62	25	30	141.68	148.73	86	20	57	32	36	177.10	185.91	86	20	57	37	51
38	115.34	120.66	103	15	69	25	30	153.79	160.89	86	20	57	32	41	192.24	201.11	86	25	57	37	51
40	121.40	126.74	110	15	73	25	30	161.87	168.99	86	20	57	36	46	202.34	211.24	86	25	57	40	55
45	136.55	141.93	126	20	82	25	30	182.06	189.24	86	20	57	36	46	227.58	236.55	86	25	57	40	55
48	145.64	151.04	130	20	87	25	30	194.18	201.38	86	25	57	36	46	242.73	251.73	98	25	65	40	55
54	163.82	169.25	72	20	48	30	35	218.42	225.67	86	25	57	36	46	273.03	282.09	98	25	65	40	55
57	172.91	178.33	72	20	48	30	35	230.54	237.81	98	25	65	36	46	288.18	297.26	98	25	65	40	55
60	182.00	187.46	80	20	57	30	35	242.66	249.95	98	25	65	36	50	303.33	312.44	98	25	65	40	55
76	230.49	236.01	80	20	57	30	35	307.32	314.66	98	25	65	36	50	384.15	393.35	98	30	65	40	55
95	288.08	293.64	80	20	57	30	35	384.11	391.52	98	25	65	36	50	480.14	489.40	110	30	73	40	55
114	345.68	351.26	98	20	65	30	35	460.91	468.35	110	25	73	36	50	576.13	585.44	110	30	73	40	55

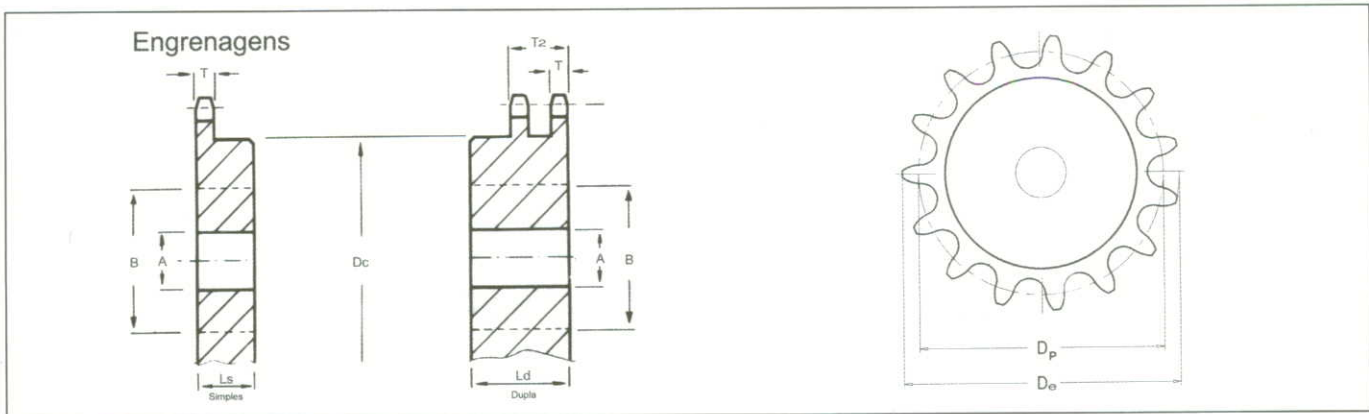
## Engrenagens



- $D_p$  = Diâmetro primitivo (mm)       $T$  = Largura do dente (mm)  
 $D_e$  = Diâmetro externo (mm)       $T_2$  = Conforme indicado no desenho  
 $D_c$  = Diâmetro do cubo (mm)       $L_s$  = Largura total da roda dentada simples (mm)  
 $A$  = Diâmetro do furo piloto (mm)       $L_d$  = Largura total da roda dentada dupla (mm)  
 $B$  = Furo máx. admissível (mm)

## Dimensões conforme NORMA ANSI

Z	ANSI 60 - PASSO 3/4" T = 11.5 mm - T2 = 34.2 mm							ANSI 80 - PASSO 1" T = 14.3 mm - T2 = 43.6 mm							ANSI 100 - PASSO 1.1/4" T = 17.2 mm - T2 = 53 mm							
	Ambas				simp.	dupla	Ambas				simp.	dupla	Ambas				simp.	dupla				
	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$	
9	55.70	63.77	33	15	22	30	45	74.26	85.03	45	20	30	35	60	-	-	-	-	-	-	-	-
10	61.65	70.06	39	15	26	30	45	82.20	93.41	53	20	35	35	60	-	-	-	-	-	-	-	-
11	67.62	76.31	46	20	31	30	45	90.16	101.74	61	20	40	35	60	112.70	127.18	77	25	51	40	70	
12	73.60	82.53	52	20	35	30	45	98.14	110.03	68	20	45	35	60	122.67	137.54	87	25	58	40	70	
13	79.60	88.72	58	20	39	30	45	106.14	118.29	76	20	50	35	60	132.67	147.86	98	30	65	40	70	
14	85.61	94.89	64	20	43	30	45	114.15	126.52	84	25	56	35	60	142.68	158.16	106	30	71	40	70	
15	91.63	101.05	70	20	47	30	45	122.17	137.74	92	25	61	35	60	152.71	168.42	116	30	77	40	70	
16	97.65	107.20	77	20	51	30	45	130.20	142.93	100	25	67	35	60	162.74	178.67	98	30	65	45	75	
17	103.67	113.34	83	20	56	30	45	138.23	151.12	110	25	73	35	60	172.79	188.90	98	30	65	45	75	
18	109.71	119.47	90	20	60	30	45	146.27	159.29	98	25	65	45	64	182.84	199.11	110	30	73	45	75	
19	115.74	125.59	96	20	64	36	50	154.32	167.45	98	25	65	45	64	192.90	209.32	110	30	73	45	75	
20	121.78	131.71	100	20	67	36	50	162.37	175.61	98	30	65	45	64	202.96	219.51	110	30	73	45	75	
21	127.82	137.82	107	25	71	36	50	170.42	183.76	98	30	73	45	64	213.03	229.70	110	30	73	45	75	
22	133.86	143.93	113	25	75	36	50	178.48	191.90	110	30	73	45	64	233.10	239.88	110	30	73	45	75	
23	139.90	150.03	113	25	75	36	50	186.54	200.04	110	30	73	45	64	233.17	250.05	110	35	73	50	75	
24	145.95	156.13	98	25	65	39	58	194.60	208.17	110	30	73	45	66	243.25	260.22	110	35	73	50	75	
25	152.00	162.23	98	25	65	39	58	202.66	216.30	110	30	73	45	66	253.33	270.38	110	35	73	50	75	
26	158.04	168.32	98	25	65	39	58	210.72	224.43	110	30	73	45	66	-	-	-	-	-	-	-	
27	164.09	174.41	98	25	65	39	58	218.79	232.55	110	30	73	45	68	-	-	-	-	-	-	-	
28	170.14	180.50	98	25	65	39	58	226.86	240.67	110	30	73	45	68	283.57	300.84	124	35	83	50	75	
30	182.25	192.68	98	25	65	39	58	243.00	256.90	110	30	73	45	72	303.75	321.13	124	35	83	56	75	
32	194.35	204.85	98	25	65	39	58	259.14	273.13	110	30	73	45	72	-	-	-	-	-	-	-	
35	212.52	223.09	98	25	65	39	58	283.36	297.46	110	30	73	45	72	354.20	371.82	124	35	83	56	75	
38	230.69	241.33	98	30	65	45	65	307.58	321.77	110	30	73	45	72	384.48	402.22	124	35	83	56	75	
40	242.80	253.48	98	30	65	45	65	323.74	337.98	110	30	73	50	75	404.67	422.47	124	35	83	56	80	
45	273.09	283.86	110	30	73	45	65	364.12	378.48	110	30	73	50	75	455.16	473.10	124	40	83	56	80	
48	291.27	302.08	124	30	83	45	65	-	-	-	-	-	-	-	485.45	503.46	136	40	90	56	80	
54	327.63	338.51	124	30	83	45	65	436.84	451.34	110	30	73	50	75	546.05	564.18	136	40	90	65	80	
57	345.81	356.72	124	30	83	45	65	461.08	475.62	124	35	83	50	75	576.35	594.53	136	40	90	65	80	
60	363.99	374.93	124	30	83	45	65	485.33	499.90	136	35	90	50	75	-	-	-	-	-	-	-	
76	460.98	472.02	124	30	83	45	65	614.64	629.36	136	35	90	50	75	768.30	786.69	150	40	100	65	80	
95	576.17	587.28	136	30	90	45	65	768.22	783.04	150	35	100	50	75	-	-	-	-	-	-	-	
114	691.36	702.53	150	30	100	45	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



- $D_p$  = Diâmetro primitivo (mm)       $T$  = Largura do dente (mm)  
 $D_e$  = Diâmetro externo (mm)       $T_2$  = Conforme indicado no desenho  
 $D_c$  = Diâmetro do cubo (mm)       $L_s$  = Largura total da roda dentada simples (mm)  
 $A$  = Diâmetro do furo piloto (mm)       $L_d$  = Largura total da roda dentada dupla (mm)  
 $B$  = Furo máx. admissível (mm)

### Dimensões conforme NORMA ANSI

Z	ANSI 120 - PASSO 1.1/2" T = 22.9 mm - T2 = 68.3 mm								ANSI 140 - PASSO 1.3/4" T = 22.9 mm - T2 = 71.8 mm								ANSI 160 - PASSO 2" T = 28.5 mm - T2 = 87 mm							
	Ambas				simp.	dupla	Ambas				simp.	dupla	Ambas				simp.	dupla						
	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$	$D_p$	$D_e$	$D_c$	A	B	$L_s$	$L_d$			
11	135.23	152.62	91	35	61	50	90	157.77	178.05	98	45	65	50	96	180.31	203.49	98	45	65	58	115			
12	147.21	165.05	103	35	69	50	90	171.14	192.56	98	45	65	50	96	196.28	220.07	110	45	73	58	115			
13	159.20	177.44	98	35	65	50	90	185.74	207.01	110	45	73	55	96	212.27	236.58	110	45	73	58	115			
14	171.22	189.79	98	35	65	50	90	199.76	221.42	110	45	73	55	96	228.29	253.05	124	45	83	60	115			
15	183.25	202.11	110	35	73	50	90	213.79	235.79	110	45	73	55	96	244.33	269.48	124	45	83	60	115			
16	195.29	214.40	110	35	73	50	90	227.84	250.14	110	45	73	55	96	260.39	285.87	124	45	83	60	115			
17	207.35	226.68	110	35	73	55	90	241.91	264.46	110	45	73	55	96	276.46	302.24	136	45	90	64	115			
18	219.41	238.94	110	35	73	55	90	255.98	278.76	110	45	73	55	96	292.55	318.58	136	45	90	64	115			
19	231.48	251.18	110	35	73	55	90	270.06	293.04	124	45	83	55	96	308.64	334.91	136	45	90	64	115			
20	243.55	263.40	110	35	73	55	90	284.14	307.32	124	45	83	55	96	324.74	351.22	136	45	90	64	115			
21	255.63	275.64	110	35	73	55	90	298.24	321.58	124	45	83	55	96	340.84	367.52	136	45	90	64	115			
22	267.72	287.85	124	35	83	55	90	312.34	335.83	124	45	83	55	96	356.96	383.80	136	45	90	64	115			
23	279.80	300.06	124	35	83	55	90	326.44	350.07	136	45	90	60	100	373.07	400.08	150	45	100	70	115			
24	291.90	312.26	124	35	83	55	90	340.55	364.30	136	45	90	60	100	389.19	416.34	150	45	100	70	115			
25	303.99	324.45	124	40	83	55	90	354.66	378.53	136	45	90	60	100	405.32	432.60	150	45	100	70	115			
28	340.29	361.01	124	40	83	55	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
30	364.49	385.36	124	40	83	55	90	425.24	449.58	136	45	90	60	100	485.99	513.81	150	45	100	70	115			
35	425.04	446.19	124	40	83	55	90	495.88	520.55	150	45	100	70	100	566.72	594.91	150	45	100	70	115			
38	461.37	482.66	136	40	90	55	95	538.27	563.10	150	45	100	70	100	615.17	643.54	150	45	100	70	115			
40	485.60	506.97	136	40	90	60	95	566.54	591.46	150	45	100	70	100	647.47	675.96	150	45	100	70	115			
45	546.19	567.72	136	40	90	60	95	637.21	662.33	150	45	100	70	100	728.25	756.95	150	45	100	70	115			
48	582.54	604.15	136	40	90	60	95	679.63	704.85	150	45	100	70	100	-	-	-	-	-	-	-			
54	655.26	677.01	136	40	90	60	95	764.47	789.85	150	45	100	70	100	-	-	-	-	-	-	-			
57	691.62	713.43	136	40	90	60	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
60	727.99	749.85	150	40	100	60	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

Além dos itens relacionados neste catálogo, fornecemos mediante consulta, outros tamanhos e modelos de rodas dentadas, de acordo com especificações do cliente.

Para informações adicionais, inclusive sobre as rodas dentadas norma DIN, favor consultar nosso departamento técnico.