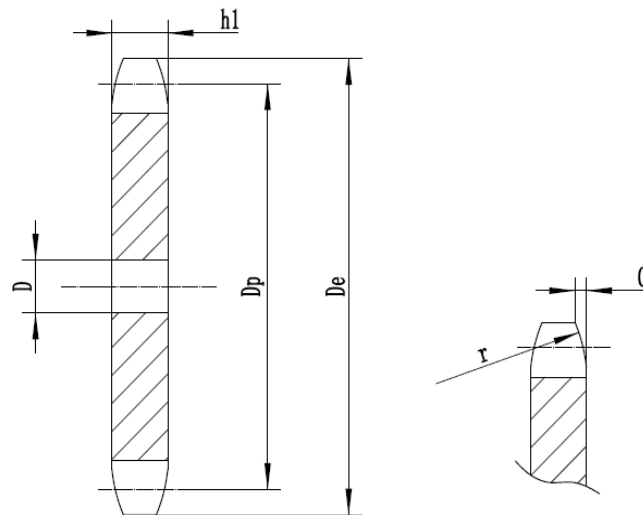


## 03B-1 (5X2.5mm)

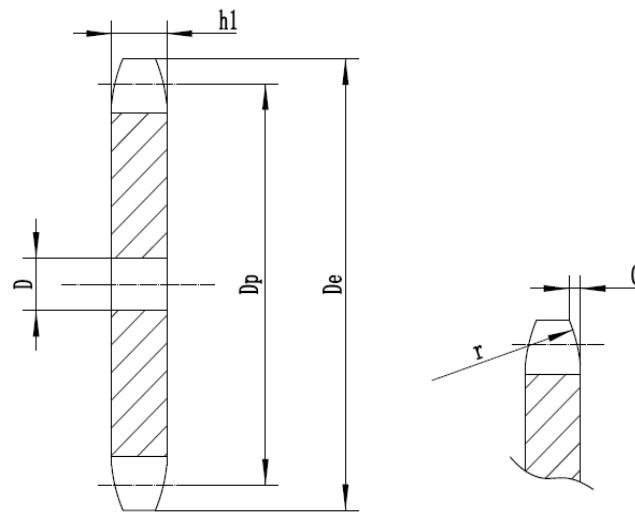


Pitch	5
Roller	3.2
r	5
C	0.6
h1	2.3

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	15.2	13.06	4	44	72.2	70.09	8
9	16.8	14.62	4	45	73.8	71.68	8
10	18.3	16.18	4	46	75.4	73.27	7.9
11	19.9	17.75	5	47	77	74.86	8
12	21.5	19.32	5	48	78.6	76.45	8
13	23	20.89	5	49	80.2	78.03	8
14	24.6	22.47	5	50	81.8	79.63	8
15	26.2	24.04	5	51	83.4	81.22	10

16	27.8	25.63	6	52	85	82.81	10
17	29.4	27.2	6	53	86.6	84.4	10
18	30.9	28.79	6	54	88.1	85.97	10
19	32.5	30.38	6	55	89.7	87.58	10
20	34.1	31.96	6	56	91.3	89.17	10
21	35.7	33.54	8	57	92.9	90.76	10
22	37.3	35.13	8	58	94.5	92.35	10
23	38.9	36.72	8	59	96.1	93.94	10
24	40.5	38.3	8	60	97.7	95.53	10
25	42	39.89	8	62	100.9	98.72	12
26	43.6	41.48	8	64	104.1	101.9	12
27	45.2	43.07	8	65	105.6	103.49	12
28	46.8	44.65	8	66	107.2	105.08	12
29	48.4	46.25	8	68	110.4	108.26	12
30	50	47.83	8	70	113.6	111.44	12
31	51.5	49.42	8	72	116.8	114.63	12
32	53.2	51.01	8	75	121.6	119.4	12
33	54.8	52.6	8	76	123.1	120.99	12
34	56.3	54.19	8	78	126.3	124.17	12
35	57.9	55.78	8	80	129.5	127.35	12
36	59.5	57.37	8	85	137.5	135.31	14
37	61.1	58.96	8	90	145.4	143.27	14
38	62.7	60.54	8	95	153.4	151.22	14
39	64.3	62.13	8	100	161.3	159.18	14
40	65.9	63.73	8	110	177.2	175.09	14
41	67.5	65.31	8	114	183.6	181.46	14
42	69.1	66.91	8	120	193.2	191.01	14
43	70.6	68.49	8	125	201.1	198.96	14

## 04B-1 (6X2.8mm)

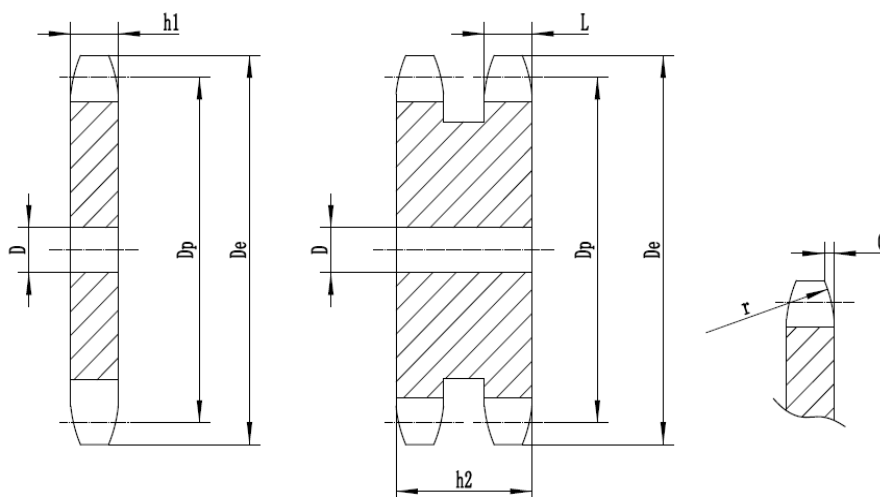


Pitch	6
Roller	4
r	6
C	0.7
h1	2.6

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	18	15.67	5	44	86.6	84.1	10
9	19.9	17.54	5	45	88.5	86.01	10
10	21.7	19.42	6	46	90.4	87.92	10
11	23.7	21.3	6	47	92.3	89.83	10
12	25.4	23.18	6	48	94.2	91.74	10
13	27.3	25.05	8	49	96.1	93.64	10
14	29.2	26.96	8	50	98	95.55	10
15	31.1	28.86	8	51	99.9	97.47	12

16	33	30.76	8	52	101.8	99.37	12
17	35	32.65	8	53	103.7	101.27	12
18	36.9	34.55	8	54	105.6	103.17	12
19	38.8	36.44	8	55	107.6	105.08	12
20	40.7	38.34	8	56	109.5	107	12
21	42.6	40.25	8	57	111.4	108.93	12
22	44.5	42.16	8	58	113.3	110.82	12
23	46.4	44.06	8	59	115.2	112.71	12
24	48.3	45.96	8	60	117.1	114.62	12
25	50.2	47.87	8	62	120.9	118.45	14
26	52.1	49.77	8	64	124.7	122.27	14
27	54	51.67	8	65	126.6	124.18	14
28	55.9	53.58	8	66	128.5	126.09	14
29	57.8	55.5	8	68	132.4	129.91	14
30	59.8	57.42	8	70	136.2	133.73	14
31	61.7	59.31	8	72	140	137.55	16
32	63.6	61.21	8	75	145.7	143.28	16
33	65.5	63.11	8	76	147.6	145.19	16
34	67.4	65.02	8	78	151.5	149.01	16
35	69.3	66.93	8	80	155.3	152.82	16
36	71.2	68.84	8	85	164.8	162.37	16
37	73.1	70.75	8	90	174.4	171.92	16
38	75	72.66	8	95	183.9	181.47	16
39	76.9	74.56	8	100	193.5	191.01	16
40	78.9	76.47	8	110	211.6	210.11	16
41	80.8	78.38	10	114	220.2	217.75	16
42	82.7	80.28	10	120	231.7	229.2	16
43	84.7	82.19	10	125	241.2	238.75	16

## 05B-1-2 (8X3mm)

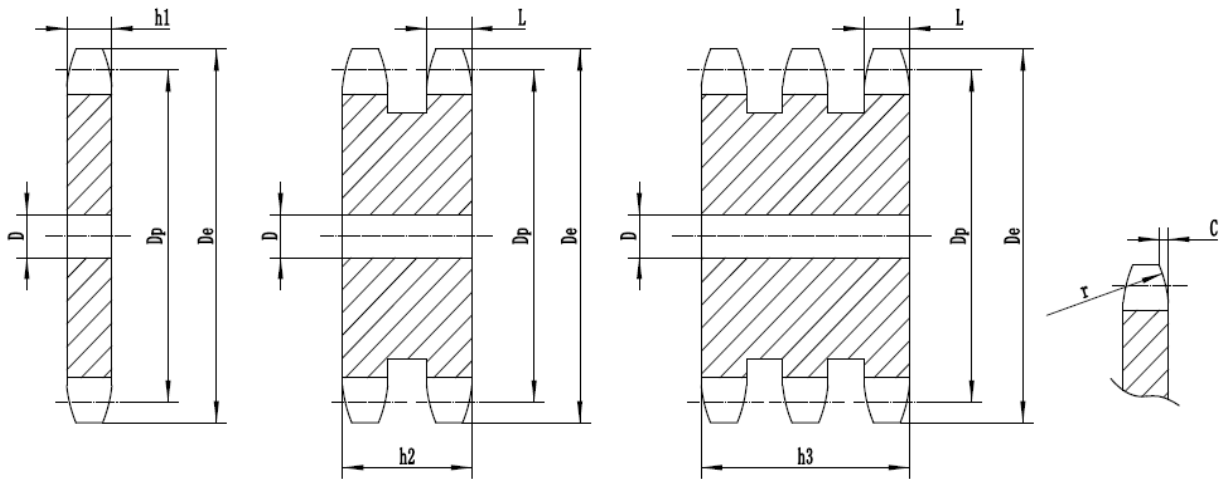


Pitch	8
Roller	5
r	8
C	1
h1	2.8
L	2.7
h2	8.3

Z	De	Dp	Simplex	Duplex	Z	De	Dp	Simplex	Duplex
			D	D				D	D
			mm	mm				mm	mm
8	24	20.9	6	6	44	115.5	112.14	12	14
9	26.6	23.39	6	6	45	118	114.69	12	14
10	29.2	25.89	8	8	46	120.6	117.23	12	14
11	31.7	28.39	8	8	47	123.1	119.77	12	14
12	34.2	30.91	8	8	48	125.6	122.32	12	14
13	36.7	33.42	8	8	49	128.2	124.86	12	14
14	39.2	35.95	8	8	50	130.7	127.41	12	14

15	41.7	38.48	8	8	51	133.3	129.95	14	16
16	44.3	41.01	8	10	52	135.8	132.49	14	16
17	46.8	43.53	8	10	53	138.4	135.04	14	16
18	49.3	46.07	8	10	54	140.9	137.59	14	16
19	51.9	48.61	8	10	55	143.5	140.13	14	16
20	54.4	51.14	8	10	56	146	142.68	14	16
21	57	53.67	8	10	57	148.6	145.22	14	16
22	59.5	56.21	8	10	58	151	147.77	14	16
23	62	58.75	8	10	59	153.6	150.31	14	16
24	64.6	61.29	8	10	60	156.2	152.85	14	16
25	67.5	63.83	8	10	62	162	157.95	16	20
26	69.5	66.37	10	12	64	167.1	163.04	16	20
27	72.2	68.91	10	12	65	169.1	165.58	16	20
28	74.8	71.45	10	12	66	172.2	168.13	16	20
29	77.3	73.99	10	12	68	177.3	173.22	16	20
30	79.8	76.53	10	12	70	182.4	178.31	16	20
31	82.4	79.08	10	12	72	187.5	183.41	20	20
32	84.9	81.61	10	12	75	195.1	191.04	20	20
33	87.5	84.16	10	12	76	197.7	193.59	20	20
34	90	86.7	10	12	78	202.8	198.68	20	20
35	92.5	89.24	10	12	80	207.9	203.77	20	20
36	95	91.79	10	12	85	220.6	216.5	20	20
37	97.6	94.33	10	12	90	233.4	229.23	20	20
38	100.2	96.88	10	12	95	246.1	241.96	20	20
39	102.7	99.42	10	12	100	258.9	254.68	20	20
40	105.2	101.97	10	12	110	284.3	280.15	20	20
41	107.8	104.51	12	14	114	294.5	290.33	20	20
42	110.4	107.05	12	14	120	310	305.61	20	20
43	112.9	109.6	12	14	125	322.5	318.34	20	20

### 06B-1-2-3 (9.525X5.72mm)



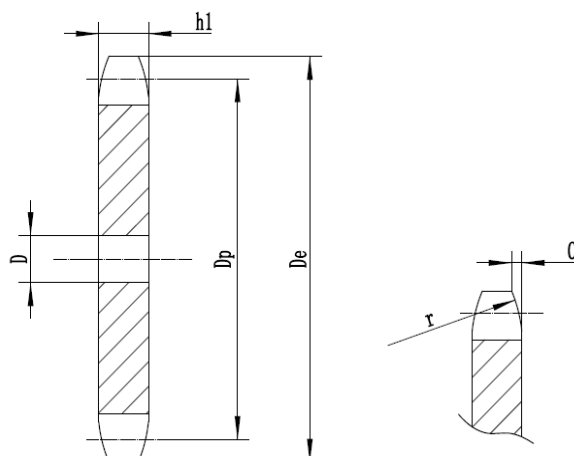
Pitch	9.525
Roller	6.35
r	10
C	1
h1	5.3
L	5.2
h2	15.4
h3	25.6

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	28	24.89	6	6	6	44	137.6	133.52	16	16	16
9	31	27.85	7	8	8	45	140.7	136.54	16	16	16
10	34	30.82	7	8	10	46	143.7	139.58	16	16	16
11	37	33.8	8	10	10	47	146.7	142.61	16	16	16
12	40	36.8	8	10	10	48	149.7	145.64	16	16	16
13	43	39.8	8	10	10	49	152.7	148.66	16	16	16
14	46.3	42.8	8	10	10	50	155.7	151.69	16	16	16

15	49.3	45.81	8	10	12	51	158.7	154.72	16	16	20
16	52.3	48.82	10	12	12	52	161.8	157.75	16	16	20
17	55.3	51.83	10	12	12	53	164.8	160.78	16	16	20
18	58.3	54.85	10	12	12	54	167.8	163.82	16	16	20
19	61.3	57.87	10	12	14	55	170.8	166.85	16	16	20
20	64.3	60.89	10	12	14	56	173.8	169.88	16	16	20
21	68	63.91	10	12	14	57	176.9	172.91	16	16	20
22	71	66.93	10	12	14	58	179.9	175.93	16	16	20
23	73.5	69.95	10	12	14	59	183	178.96	16	16	20
24	77	72.97	10	12	14	60	186	181.99	16	16	20
25	80	76	10	12	14	62	192.1	188.06	20	20	20
26	83	79.02	10	12	14	64	198.2	194.12	20	20	20
27	86	82.04	10	12	14	65	201.6	197.15	20	20	20
28	89	85.07	10	12	14	66	204.6	200.18	20	20	25
29	92	88.09	10	12	14	68	210.7	206.24	20	20	25
30	94.7	91.12	10	12	14	70	216.7	212.3	20	20	25
31	98.3	94.15	12	14	16	72	222.8	218.37	20	20	25
32	101.3	97.17	12	14	16	75	231.9	227.46	20	20	25
33	104.3	100.2	12	14	16	76	234.9	230.49	20	20	25
34	107.3	103.23	12	14	16	78	241	236.55	20	20	25
35	110.4	106.26	12	14	16	80	247.1	242.61	20	20	25
36	113.4	109.29	12	14	16	85	262.2	257.77	20	20	25
37	116.4	112.32	12	14	16	90	277.4	272.93	20	20	25
38	119.5	115.34	12	14	16	95	292.5	288.08	20	20	25
39	122.5	118.37	12	14	16	100	307.7	303.25	20	20	25
40	125.5	121.4	12	14	16	110	338	333.55	20	20	25
41	128.5	124.43	16	16	16	114	349.5	345.68	20	20	25
42	131.6	127.46	16	16	16	120	368.3	363.86	20	20	25
43	134.6	130.49	16	16	16	125	383.5	379.02	20	20	25



## 081-1 (12.7X3.33mm)

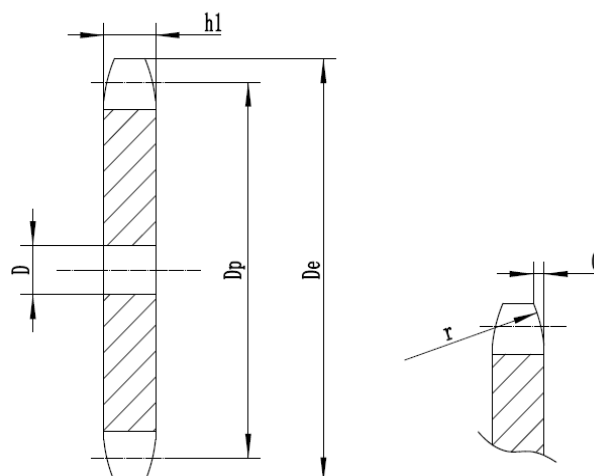


Pitch	12.7
Roller	7.75
r	13
C	1.3
h1	3

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	37.2	33.18	8	43	179.5	173.99	16
9	41.5	37.13	8	44	183.5	178.03	16
10	46.2	41.1	8	45	187.5	182.07	16
11	49.6	45.07	8	46	191.6	186.1	20
12	53.9	49.07	8	47	195.6	190.14	20
13	58.4	53.06	8	48	199.7	194.18	20
14	62.8	57.07	8	49	203.7	198.22	20
15	66.8	61.09	8	50	207.8	202.26	20
16	70.9	65.1	10	51	211.8	206.3	20

17	74.9	69.11	10	52	215.9	210.34	20
18	78.9	73.14	10	53	219.9	214.37	20
19	82.9	77.16	10	54	224	218.43	20
20	86.9	81.19	10	55	228	222.46	20
21	91	85.22	10	56	232.1	226.5	20
22	95	89.24	10	57	236.1	230.54	20
23	99	93.27	10	58	240.2	234.58	20
24	103	97.29	10	59	244.2	238.62	20
25	107.1	101.33	10	60	248.2	242.66	20
26	111.2	105.36	12	62	256.7	250.75	20
27	115.4	109.4	12	64	264.8	258.82	20
28	119.4	113.42	12	65	268.8	262.86	20
29	123.4	117.46	12	66	272.9	266.9	25
30	127.5	121.5	12	68	280.9	274.99	25
31	131.5	125.54	12	70	289	283.07	25
32	135.5	129.56	12	72	297.1	291.16	25
33	139.6	133.6	12	76	313.3	307.33	25
34	143.6	137.64	12	78	321.4	315.4	25
35	147.6	141.68	12	80	329.4	323.48	25
36	151.7	145.72	16	85	349.7	343.7	25
37	155.7	149.76	16	90	369.9	363.9	25
38	159.8	153.8	16	100	410.3	404.31	25
39	163.8	157.83	16	110	450.7	444.74	25
40	167.8	161.87	16	114	466.9	460.9	25
41	171.4	165.91	16	120	491.2	485.16	25
42	175.4	169.95	16	125	511.4	505.37	25

083-1/084-1 (12.7X4.88mm)

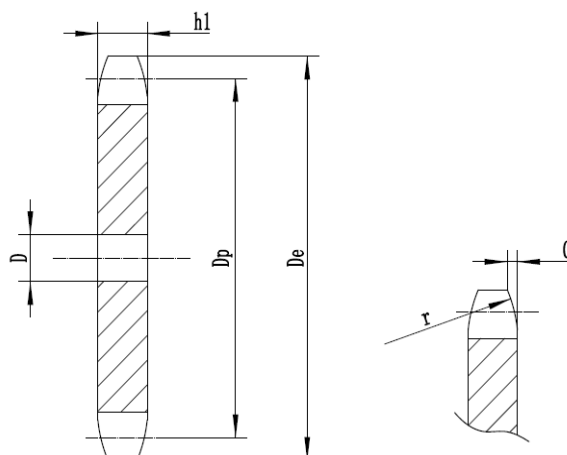


Pitch	12.7
Roller	7.75
r	13
C	1.3
h1	4.5

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	37.2	33.18	8	43	179.5	173.99	16
9	41.5	37.13	8	44	183.5	178.03	16
10	46.2	41.1	8	45	187.5	182.07	16
11	49.6	45.07	8	46	191.6	186.1	20
12	53.9	49.07	8	47	195.6	190.14	20
13	58.4	53.06	8	48	199.7	194.18	20
14	62.8	57.07	8	49	203.7	198.22	20
15	66.8	61.09	8	50	207.8	202.26	20
16	70.9	65.1	10	51	211.8	206.3	20

17	74.9	69.11	10	52	215.9	210.34	20
18	78.9	73.14	10	53	219.9	214.37	20
19	82.9	77.16	10	54	224	218.43	20
20	86.9	81.19	10	55	228	222.46	20
21	91	85.22	10	56	232.1	226.5	20
22	95	89.24	10	57	236.1	230.54	20
23	99	93.27	10	58	240.2	234.58	20
24	103	97.29	10	59	244.2	238.62	20
25	107.1	101.33	10	60	248.2	242.66	20
26	111.2	105.36	12	62	256.7	250.75	20
27	115.4	109.4	12	64	264.8	258.82	20
28	119.4	113.42	12	65	268.8	262.86	20
29	123.4	117.46	12	66	272.9	266.9	25
30	127.5	121.5	12	68	280.9	274.99	25
31	131.5	125.54	12	70	289	283.07	25
32	135.5	129.56	12	72	297.1	291.16	25
33	139.6	133.6	12	76	313.3	307.33	25
34	143.6	137.64	12	78	321.4	315.4	25
35	147.6	141.68	12	80	329.4	323.48	25
36	151.7	145.72	16	85	349.7	343.7	25
37	155.7	149.76	16	90	369.9	363.9	25
38	159.8	153.8	16	100	410.3	404.31	25
39	163.8	157.83	16	110	450.7	444.74	25
40	167.8	161.87	16	114	466.9	460.9	25
41	171.4	165.91	16	120	491.2	485.16	25
42	175.4	169.95	16	125	511.4	505.37	25

## O85-1 (12.7X6.4X7.75mm)

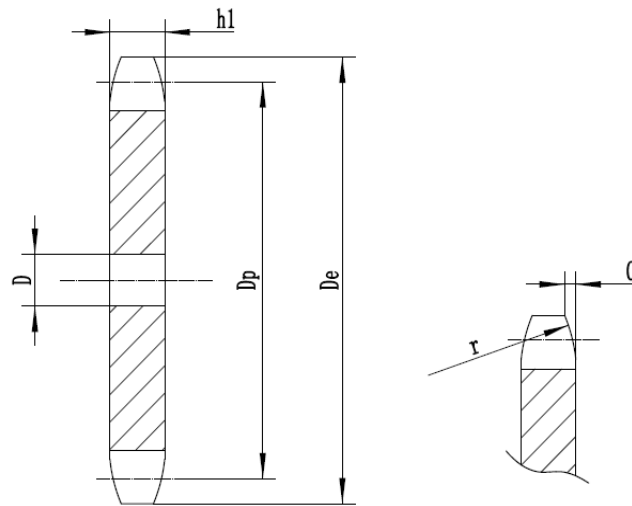


Pitch	12.7
Roller	7.75
r	13
C	1.3
h1	5.9

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	38.5	33.18	8	43	179.5	173.99	16
9	41.5	37.13	8	44	183.5	178.03	16
10	46.2	41.1	8	45	187.5	182.07	16
11	49.6	45.07	8	46	191.6	186.1	20
12	53.9	49.07	8	47	195.6	190.14	20
13	58.4	53.06	8	48	199.7	194.18	20
14	62.8	57.07	8	49	203.7	198.22	20
15	66.8	61.09	8	50	207.8	202.26	20
16	70.9	65.1	10	51	211.8	206.3	20

17	74.9	69.11	10	52	215.9	210.34	20
18	78.9	73.14	10	53	219.9	214.37	20
19	82.9	77.16	10	54	224	218.43	20
20	86.9	81.19	10	55	228	222.46	20
21	91	85.22	10	56	232.1	226.5	20
22	95	89.24	10	57	236.1	230.54	20
23	99	93.27	10	58	240.2	234.58	20
24	103	97.29	10	59	244.2	238.62	20
25	107.1	101.33	10	60	248.2	242.66	20
26	111.2	105.36	12	62	256.7	250.75	20
27	115.4	109.4	12	64	264.8	258.82	20
28	119.4	113.42	12	65	268.8	262.86	20
29	123.4	117.46	12	66	272.9	266.9	25
30	127.5	121.5	12	68	280.9	274.99	25
31	131.5	125.54	12	70	289	283.07	25
32	135.5	129.56	12	72	297.1	291.16	25
33	139.6	133.6	12	76	313.3	307.33	25
34	143.6	137.64	12	78	321.4	315.4	25
35	147.6	141.68	12	80	329.4	323.48	25
36	151.7	145.72	16	85	349.7	343.7	25
37	155.7	149.76	16	90	369.9	363.9	25
38	159.8	153.8	16	100	410.3	404.31	25
39	163.8	157.83	16	110	450.7	444.74	25
40	167.8	161.87	16	114	466.9	460.9	25
41	171.4	165.91	16	120	491.2	485.16	25
42	175.4	169.95	16	125	511.4	505.37	25

## O85-1 (12.7X6.4X8.51mm)



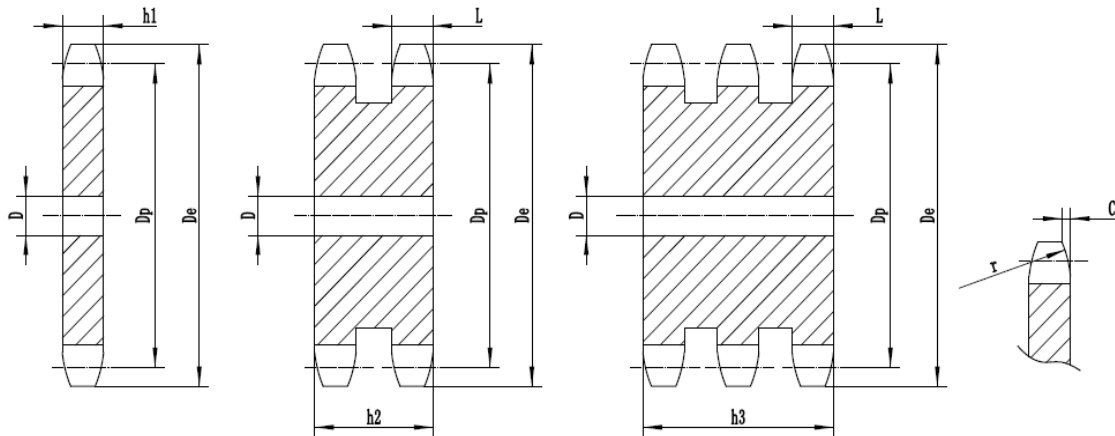
Pitch	12.7
Roller	8.51
r	13
C	1.3
h1	5.9

Z	De	Dp	Simplex	Z	De	Dp	Simplex
			D				D
			mm				mm
8	37.2	33.18	8	43	179.7	173.99	16
9	41	37.13	8	44	183.8	178.03	16
10	45.2	41.1	8	45	188	182.07	16
11	48.7	45.07	8	46	192.1	186.1	20
12	53	49.07	8	47	196.2	190.14	20
13	57.4	53.06	8	48	200.3	194.18	20
14	61.8	57.07	8	49	204.3	198.22	20
15	65.5	61.09	8	50	208.3	202.26	20
16	69.5	65.1	10	51	212.1	206.3	20

17	73.6	69.11	10	52	216.1	210.34	20
18	77.8	73.14	10	53	220.2	214.37	20
19	81.7	77.16	10	54	224.1	218.43	20
20	85.8	81.19	10	55	228.1	222.46	20
21	89.7	85.22	10	56	232.1	226.5	20
22	93.8	89.24	10	57	236.4	230.54	20
23	98.2	93.27	10	58	240.5	234.58	20
24	101.8	97.29	10	59	244.5	238.62	20
25	105.8	101.33	10	60	248.6	242.66	20
26	110	105.36	12	62	256.9	250.75	20
27	114	109.4	12	64	265.1	258.82	20
28	118	113.42	12	65	269	262.86	20
29	122	117.46	12	66	273	266.9	25
30	126.1	121.5	12	68	281	274.99	25
31	130.2	125.54	12	70	289	283.07	25
32	134.2	129.56	12	72	297.2	291.16	25
33	138.4	133.6	12	76	313.3	307.33	25
34	142.6	137.64	12	78	321.4	315.4	25
35	146.7	141.68	12	80	329.4	323.48	25
36	151	145.72	16	85	349	343.7	25
37	154.6	149.76	16	90	369.9	363.9	25
38	158.6	153.8	16	100	410.3	404.31	25
39	162.7	157.83	16	110	450.7	444.74	25
40	166.8	161.87	16	114	466.9	460.9	25
41	171.4	165.91	16	120	491.2	485.16	25
42	175.4	169.95	16	125	511.3	505.37	25



### 08B-1-2-3 (12.7X7.75mm)

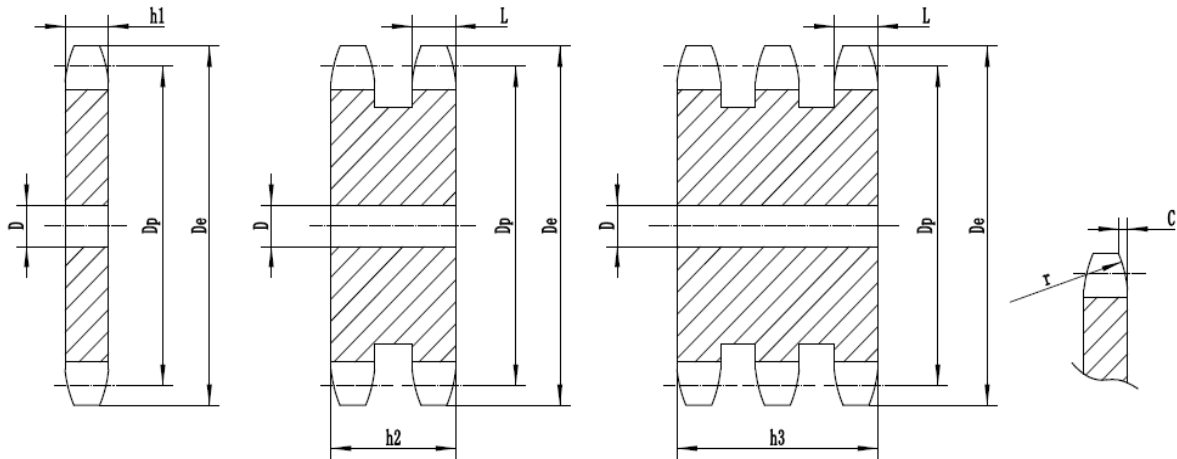


Pitch	12.7
Roller	8.51
r	13
C	1.3
h1	7.2
L	7
h2	21
h3	34.9

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	37.2	33.18	8	10	10	44	183.8	178.03	20	20	25
9	41	37.13	8	10	10	45	188	182.07	20	20	25
10	45.2	41.1	8	10	10	46	192.1	186.1	20	20	25
11	48.7	45.07	10	10	12	47	196.2	190.14	20	20	25
12	53	49.07	10	10	12	48	200.3	194.18	20	20	25
13	57.4	53.06	10	10	12	49	204.3	198.22	20	20	25
14	61.8	57.07	10	10	12	50	208.3	202.26	20	20	25

15	65.5	61.09	10	10	12	51	212.1	206.3	20	25	25
16	69.5	65.1	10	12	16	52	216.1	210.34	20	25	25
17	73.6	69.11	10	12	16	53	220.2	214.37	20	25	25
18	77.8	73.14	10	12	16	54	224.1	218.43	20	25	25
19	81.7	77.16	10	12	16	55	228.1	222.46	20	25	25
20	85.8	81.19	10	12	16	56	232.1	226.5	20	25	25
21	89.7	85.22	12	16	16	57	236.4	230.54	20	25	25
22	93.8	89.24	12	16	16	58	240.5	234.58	20	25	25
23	98.2	93.27	12	16	16	59	244.5	238.62	20	25	25
24	101.8	97.29	12	16	16	60	248.6	242.66	20	25	25
25	105.8	101.33	12	16	16	62	256.9	250.75	25	25	25
26	110	105.36	16	16	16	64	265.1	258.82	25	25	25
27	114	109.4	16	16	16	65	269	262.86	25	25	25
28	118	113.42	16	16	16	66	273	266.9	25	25	25
29	122	117.46	16	16	16	68	281	274.99	25	25	25
30	126.1	121.5	16	16	16	70	289	283.07	25	25	25
31	130.2	125.54	16	16	20	72	297.2	291.16	25	25	25
32	134.2	129.56	16	16	20	75	309.2	303.27	25	25	25
33	138.4	133.6	16	16	20	76	313.3	307.33	25	25	25
34	142.6	137.64	16	16	20	78	321.4	315.4	25	25	25
35	146.7	141.68	16	16	20	80	329.4	323.48	25	25	25
36	151	145.72	16	20	20	85	349	343.7	25	25	25
37	154.6	149.76	16	20	20	90	369.9	363.9	25	25	25
38	158.6	153.8	16	20	20	95	390.1	384.11	25	25	25
39	162.7	157.83	16	20	20	100	410.3	404.31	25	25	25
40	166.8	161.87	16	20	20	110	450.7	444.74	25	25	25
41	171.4	165.91	20	20	25	114	466.9	460.9	25	25	25
42	175.4	169.95	20	20	25	120	491.2	485.16	25	25	25
43	179.7	173.99	20	20	25	125	511.3	505.37	25	25	25

### 10B-1-2-3 (15.875X9.65mm)

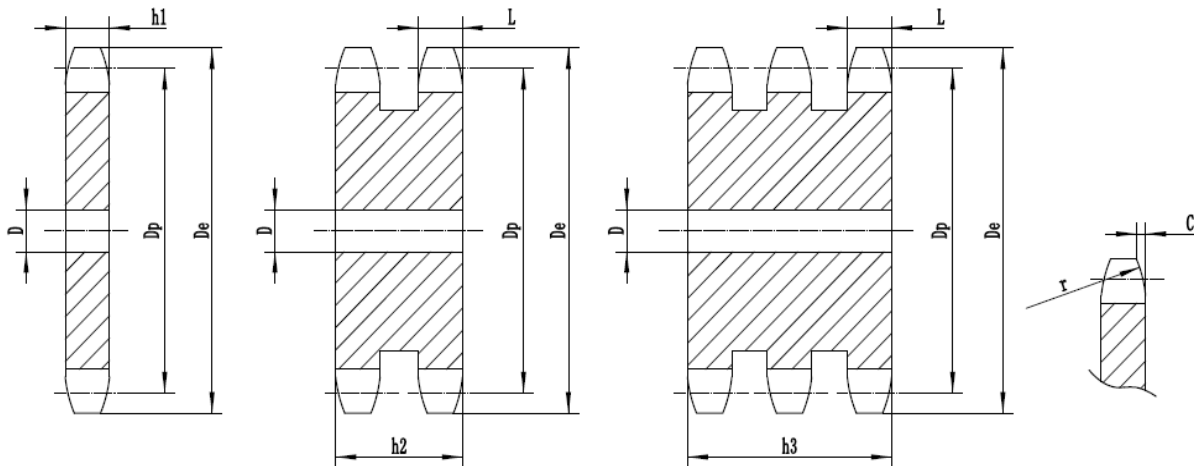


Pitch	15.875
Roller	10.16
r	16
C	1.6
h1	9.1
L	9
h2	25.5
h3	42.1

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	47	41.48	10	10	12	44	230	222.53	20	20	25
9	52.6	46.42	10	10	12	45	235	227.58	20	20	25
10	57.5	51.37	10	10	12	46	240.1	232.63	20	25	25
11	63	56.34	10	12	12	47	245.1	237.68	20	25	25
12	68	61.34	10	12	12	48	250.2	242.73	20	25	25
13	73	66.32	10	12	12	49	255.2	247.78	20	25	25
14	78	71.34	10	12	12	50	260.3	252.82	20	25	25

15	83	76.36	10	12	12	51	265.3	257.87	20	25	25
16	88	81.37	12	12	16	52	270.4	262.92	20	25	25
17	93	86.39	12	12	16	53	275.4	267.97	20	25	25
18	98.3	91.42	12	12	16	54	280.5	273.03	20	25	25
19	103.3	96.45	12	12	16	55	285.5	278.08	20	25	25
20	108.4	101.49	12	12	16	56	290.6	283.13	25	25	25
21	113.4	106.52	12	16	16	57	296	288.18	25	25	25
22	118	111.55	12	16	16	58	300.7	293.23	25	25	25
23	123.4	116.58	12	16	16	59	305.7	298.27	25	25	25
24	128.3	121.62	12	16	16	60	310.8	303.32	25	25	25
25	134	126.66	12	16	16	62	321.4	313.43	25	25	30
26	139	131.7	16	16	20	64	331.5	323.53	25	25	30
27	144	136.75	16	16	20	65	336.5	328.58	25	25	30
28	148.7	141.78	16	16	20	66	341.6	333.63	25	25	30
29	153.8	146.83	16	16	20	68	351.7	343.74	25	25	30
30	158.8	151.87	16	16	20	70	361.8	353.84	25	25	30
31	163.9	156.92	16	20	20	72	371.9	363.95	25	25	30
32	168.9	161.95	16	20	20	75	387.1	379.09	25	25	30
33	174.5	167	16	20	20	76	392.1	384.16	25	25	30
34	179	172.05	16	20	20	78	402.2	394.25	25	25	30
35	184.1	177.1	16	20	20	80	412.3	404.35	25	25	30
36	189.1	182.15	20	20	25	85	437.6	429.62	30	30	30
37	194.2	187.2	20	20	25	90	462.8	454.88	30	30	30
38	199.2	192.24	20	20	25	95	488.5	480.14	30	30	30
39	204.2	197.29	20	20	25	100	513.4	505.4	30	30	30
40	209.3	202.34	20	20	25	110	563.9	555.92	30	30	30
41	214.8	207.39	20	20	25	114	584.1	576.13	30	30	30
42	219.9	212.44	20	20	25	120	614.8	606.44	30	30	30
43	224.9	217.49	20	20	25	125	639.7	631.71	30	30	30

## 12B-1-2-3 (19.05X11.68mm)

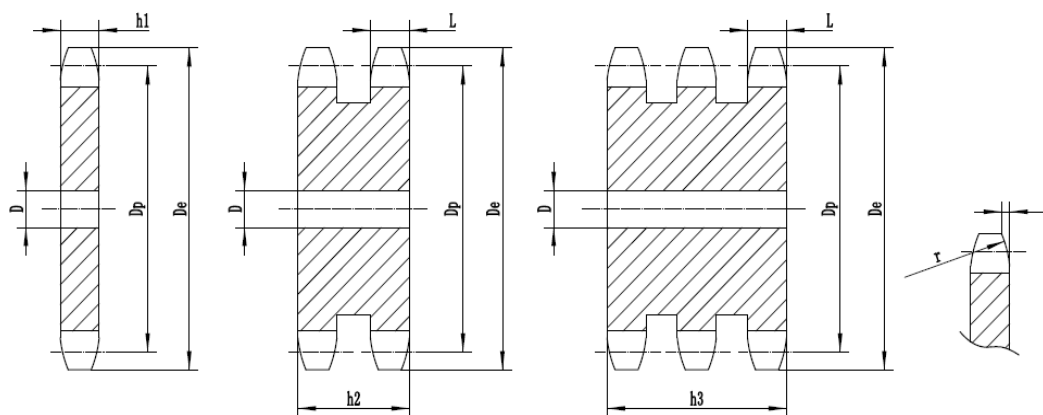


Pitch	19.05
Roller	12.07
r	19
C	2
h1	11.1
L	10.8
h2	30.3
h3	49.8

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	57.6	49.78	12	12	12	44	276.5	267.03	25	25	25
9	62	55.7	12	12	12	45	282.5	273.1	25	25	25
10	69	61.64	12	12	12	46	287.9	279.16	25	25	25
11	75	67.61	14	14	16	47	294	285.21	25	25	25
12	91.5	73.6	14	14	16	48	300.1	291.27	25	25	25
13	87.5	79.59	14	14	16	49	306.2	297.33	25	25	25
14	93.6	85.61	14	14	16	50	312.3	303.39	25	25	25

15	99.8	91.63	14	14	16	51	318.4	309.45	25	25	25
16	105.5	97.65	14	16	16	52	324.5	315.5	25	25	25
17	111.5	103.67	14	16	16	53	330.5	321.56	25	25	25
18	118	109.71	14	16	16	54	336.6	327.64	25	25	25
19	124.2	115.75	14	16	16	55	342.7	333.7	25	25	25
20	129.7	121.78	14	16	16	56	348.7	339.75	25	25	30
21	136	127.82	16	16	20	57	355.4	345.81	25	25	30
22	141.8	133.86	16	16	20	58	361.5	351.87	25	25	30
23	149	139.9	16	16	20	59	367.5	357.93	25	25	30
24	153.9	145.94	16	16	20	60	373	363.99	25	25	30
25	160	152	16	16	20	62	385.1	376.12	25	30	30
26	165.9	158.04	16	20	20	64	397.2	388.24	25	30	30
27	172.3	164.09	16	20	20	65	403.2	394.29	25	30	30
28	178	170.13	16	20	20	66	409.2	400.35	30	30	30
29	184.1	176.19	16	20	20	68	421.4	412.49	30	30	30
30	190.5	182.25	16	20	20	70	433.6	424.6	30	30	30
31	196.3	188.31	20	20	25	72	447	436.74	30	30	30
32	203.3	194.35	20	20	25	75	463.9	454.91	30	30	30
33	209.3	200.4	20	20	25	76	469.9	460.99	30	30	30
34	214.6	206.46	20	20	25	78	482.1	473.1	30	30	30
35	221	212.52	20	20	25	80	494.2	485.22	30	30	30
36	226.8	218.58	20	25	25	85	524.5	515.55	30	30	30
37	232.9	224.64	20	25	25	90	554.8	545.86	30	30	30
38	239	230.69	20	25	25	95	585.1	576.17	30	30	30
39	245.1	236.75	20	25	25	100	615.4	606.47	30	30	30
40	251.3	242.81	20	25	25	110	676.1	667.11	30	30	30
41	257.3	248.87	25	25	25	114	700.6	691.36	30	30	30
42	264.5	254.93	25	25	25	120	736.7	727.74	30	30	30
43	270.5	260.98	25	25	25	125	767	758.05	30	30	30

### 16B-1-2-3 (25.4X17.02mm)



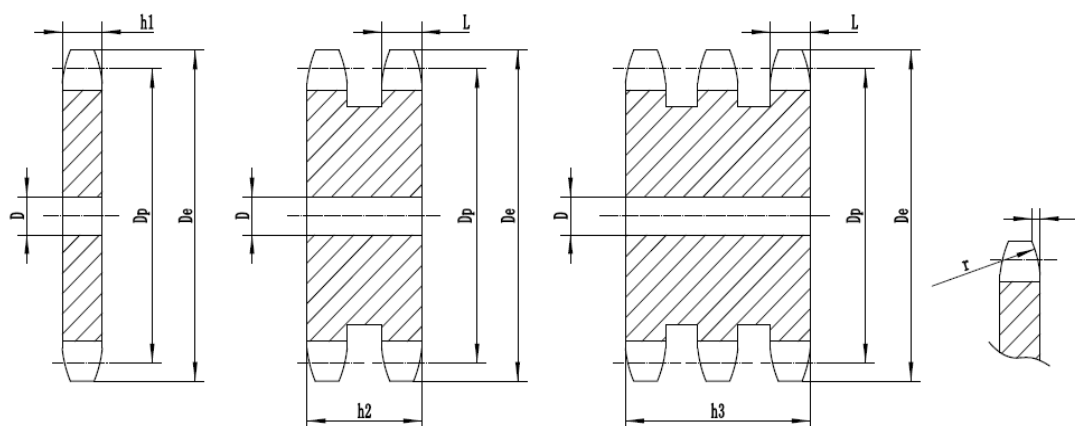
Pitch	25.4
Roller	15.88
r	26
C	2.5
h1	16.2
L	15.8
h2	47.7
h3	79.6

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	77	66.37	12	16	20	44	369.1	356.06	25	25	30
9	85	74.27	12	16	20	45	377.1	364.12	25	25	30
10	93	82.19	15	16	20	46	385.2	372.21	25	30	30
11	99.5	90.14	15	20	20	47	393.2	380.29	25	/	/
12	109	98.14	15	20	20	48	401.3	388.36	25	30	30
13	117	106.12	15	20	20	49	409.3	396.44	25	/	/
14	125	114.15	15	20	20	50	417.4	404.52	25	30	30

15	133	122.17	15	20	20	51	425.5	412.6	30	30	40
16	141	130.2	19	20	30	52	433.6	420.67	30	30	40
17	149	138.22	19	20	30	53	441.7	428.75	30	/	/
18	157	146.28	19	20	30	54	448.3	436.85	30	/	/
19	165.2	154.33	19	20	30	55	457.9	444.93	30	30	40
20	173.2	162.38	19	20	30	56	466	453.01	30	30	/
21	181.2	170.43	20	25	30	57	474	461.07	30	30	40
22	189.3	178.48	20	25	30	58	482.1	469.16	30	/	/
23	197.5	186.53	20	25	30	59	490.2	477.24	30	/	/
24	205.5	194.59	20	25	30	60	498.3	485.32	30	30	40
25	213.5	202.66	20	25	30	62	514.5	501.5	30	30	/
26	221.6	210.72	20	25	30	64	530.7	517.65	30	/	/
27	229.6	218.79	20	25	30	65	538.8	525.73	30	30	40
28	237.7	226.85	20	25	30	66	546.8	533.8	30	/	/
29	245.8	234.92	20	25	30	68	562.9	549.98	30	30	40
30	254	243	20	25	30	70	579.2	566.14	30	30	40
31	262	251.08	25	25	30	72	595.4	582.32	30	30	40
32	270	259.13	25	25	30	75	619.7	606.55	30	30	40
33	278.5	267.21	25	25	30	76	627	614.65	30	30	40
34	287	275.28	25	25	30	78	643.3	630.8	30	/	/
35	296.2	283.36	25	25	30	80	660	646.96	30	30	40
36	304.6	291.44	25	25	30	85	699.9	687.4	30	30	40
37	312.6	299.51	25	25	30	90	740.3	727.81	30	30	40
38	320.7	307.59	25	25	30	95	781.1	768.22	30	30	40
39	328.8	315.67	25	25	30	100	821.1	808.63	30	30	40
40	336.9	323.73	25	25	30	110	902	889.48	30	30	40
41	345	331.82	25	/	/	114	934.3	921.81	30	40	40
42	353	339.9	25	25	30	120	982.8	970.33	30	40	40
43	361.1	347.98	25	25	/	125	1023.2	1010.73	30	40	40



## 20B-1-2-3 (31.75X19.56mm)

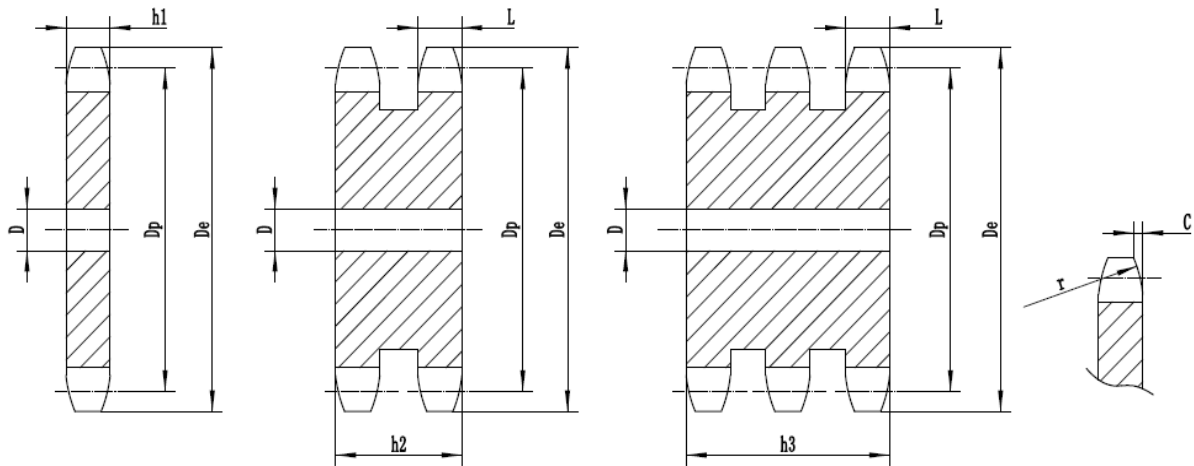


Pitch	31.75
Roller	19.05
r	32
C	3.5
h1	18.5
L	18.2
h2	54.6
h3	91

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	98.1	82.96	16	20	20	42	440	424.88	30	30	40
9	108	92.84	16	20	20	43	450.1	434.97	30	/	/
10	117.9	102.74	16	20	20	44	460.2	445.07	30	/	/
11	127.8	112.68	20	20	20	45	470.3	455.17	30	30	40
12	137.8	122.68	20	20	20	46	480.4	465.26	30	30	40
13	147.8	132.65	20	20	20	47	490.5	475.36	30	/	/
14	157.8	142.68	20	20	20	48	500.6	485.46	30	30	40

15	167.9	152.72	20	20	20	49	510.7	495.55	30	/	/
16	177.9	162.75	20	25	25	50	520.8	505.65	30	30	40
17	187.9	172.78	20	25	25	51	530.9	515.75	30	/	/
18	198	182.85	20	25	25	52	541	525.84	30	30	40
19	208.1	192.91	20	25	25	53	551.1	535.94	30	/	/
20	218.1	202.98	20	25	25	54	561.2	546.07	30	/	/
21	228.2	213.04	25	25	25	55	571.3	556.16	30	30	40
22	238.2	223.11	25	25	25	56	581.4	566.26	30	/	/
23	248.3	233.17	25	25	25	57	591.5	576.36	30	30	40
24	258.4	243.23	25	25	25	58	601.6	586.45	30	/	/
25	268.5	253.33	25	25	25	59	611.7	596.55	30	/	/
26	278.6	263.4	25	25	25	60	621.8	606.65	30	30	40
27	288.6	273.48	25	25	25	62	642	626.87	30	/	/
28	298.7	283.56	25	25	25	64	662.2	647.06	30	/	/
29	308.8	293.65	25	25	25	65	672.3	657.16	30	30	40
30	318.9	303.75	25	25	25	66	682.4	667.26	30	/	/
31	329	313.85	25	25	30	68	702.6	687.48	30	/	/
32	339.1	323.91	25	25	30	70	722.8	707.67	30	30	40
33	349.2	334.01	25	25	30	72	743.1	727.9	30	/	/
34	359.3	334.1	25	25	30	75	773	758.19	30	/	/
35	369.4	354.2	25	25	30	76	783.5	768.32	30	30	40
36	379.5	364.3	25	30	30	80	823.9	808.72	30	30	40
37	389.5	374.39	25	30	30	85	874.4	859.25	30	/	/
38	399.6	384.49	25	30	30	90	924.9	909.76	30	/	/
39	409.7	394.59	25	30	30	95	975.2	960.28	30	30	40
40	419.8	404.56	25	30	30	100	1026	1010.8	30	/	/
41	429.9	414.78	30	/	/	114	1167.4	1152.3	30	30	40

## 24B-1-2-3 (38.1X25.4mm)

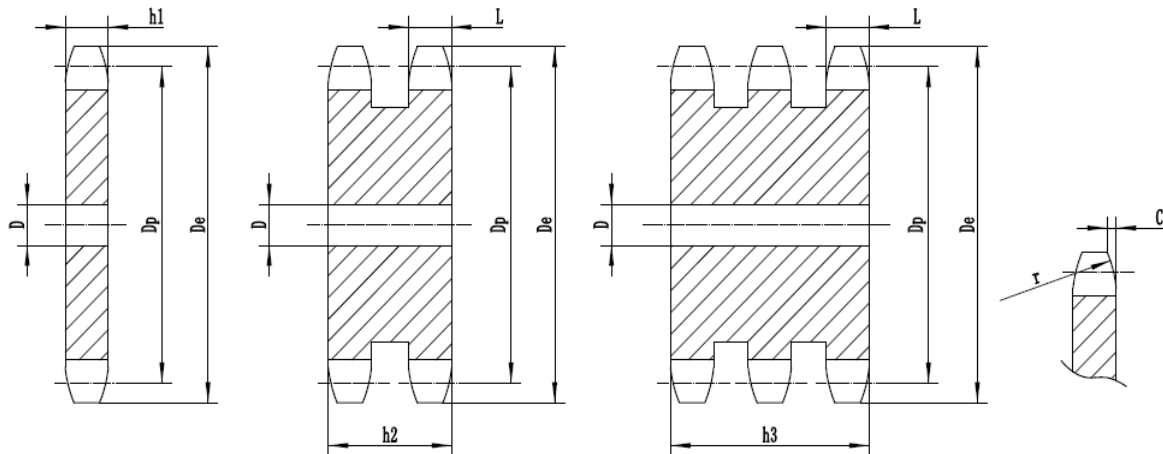


Pitch	38.1
Roller	25.1
r	38
C	4
h1	24.1
L	23.6
h2	72
h3	120.3

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	115	99.55	20	25	25	41	512.6	497.74	30	/	/
9	126.4	111.4	20	25	25	42	524.7	509.85	30	40	40
10	138	123.29	20	25	25	43	536.8	521.97	30	/	/
11	150	135.21	20	25	25	44	549	534.08	30	/	/
12	162	147.22	20	25	25	45	561.2	546.2	30	40	40
13	174.2	159.18	20	25	25	46	573.3	558.32	30	40	40

14	186.2	171.22	20	25	25	47	585.4	570.43	30	/	/
15	198.2	183.26	20	25	25	48	597.4	582.55	30	40	40
16	210.3	195.3	25	25	25	49	609.5	594.66	30	/	/
17	222.3	207.34	25	25	25	50	621.7	606.78	30	40	40
18	234.3	219.42	25	25	25	51	633.8	618.89	30	/	/
19	246.5	231.49	25	25	25	52	646	631.01	30	/	/
20	258.6	243.57	25	25	25	53	658	643.13	30	/	/
21	270.6	255.65	25	25	30	54	670.2	655.25	30	/	/
22	282.7	267.73	25	25	30	55	682.3	667.4	30	40	40
23	294.8	279.8	25	25	30	56	694.4	679.5	30	/	/
24	306.8	291.88	25	25	30	57	706.5	691.73	30	40	40
25	319	304	25	25	30	58	718.6	703.74	30	/	/
26	331	316.08	30	30	30	59	730.7	715.86	30	/	/
27	343.2	328.19	30	30	30	60	742.8	727.97	30	40	40
28	355.2	340.27	30	30	30	62	767.2	752.24	40	/	/
29	367.3	352.38	30	30	30	64	791.3	776.48	40	/	/
30	379.5	364.5	30	30	40	65	803.4	788.59	40	40	40
31	391.6	376.62	30	40	40	66	815.6	800.17	40	/	/
32	403.7	388.69	30	40	40	68	839.8	824.98	40	/	/
33	415.8	400.81	30	40	40	70	864.2	849.21	40	/	/
34	427.8	412.93	30	40	40	72	888.4	873.48	40	/	/
35	440	425.04	30	40	40	75	924.8	909.83	40	/	/
36	452	437.16	30	40	40	76	936.9	921.98	40	40	40
37	464.2	449.27	30	40	40	80	985.4	970.44	40	/	/
38	476.2	461.39	30	40	40	85	1046	1031.1	40	/	/
39	488.8	473.5	30	40	40	95	1167.3	1152.3	40	/	/
40	500.6	485.62	30	40	40						

## 28B-1-2-3 (44.45X30.99mm)

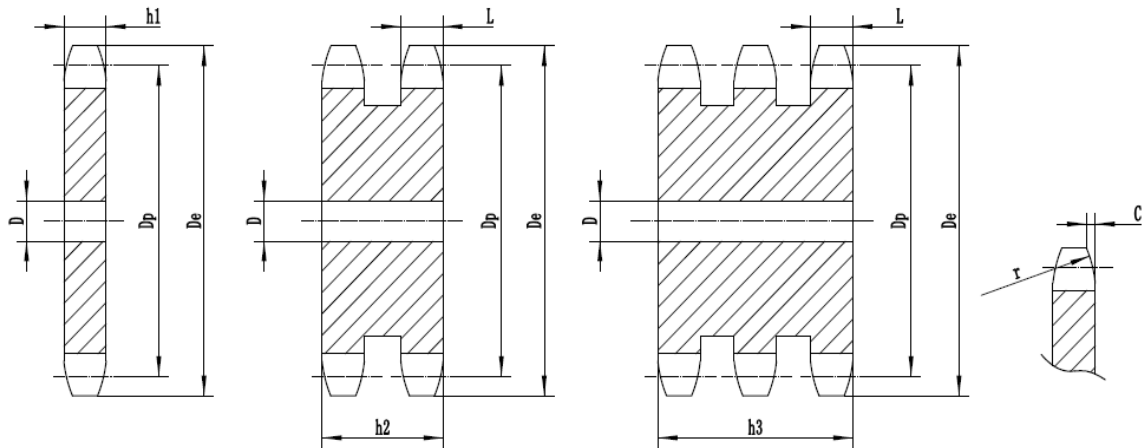


Pitch	44.45
Roller	27.94
r	44
C	5
h1	29.4
L	28.8
h2	88.4
h3	148

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	132	116.15	25	25	25	27	401	382.88	30	30	40
9	148.4	129.96	25	25	25	28	416	397	30	30	40
10	162.3	143.85	25	25	25	29	430	411.12	30	30	40
11	176.3	157.77	25	25	30	30	444	425.24	30	30	40
12	189.3	171.74	25	25	30	31	458	439.37	30	30	40
13	204.2	185.75	25	25	30	32	472	453.49	30	30	40
14	218.2	199.76	25	25	30	33	486	467.62	30	30	40

15	232.3	213.79	25	25	30	34	500	481.75	30	30	40
16	246.3	227.84	30	30	30	35	514	495.88	30	30	40
17	260	241.9	30	30	30	36	529	510.01	30	30	40
18	274	255.98	30	30	30	37	543	524.13	30	30	40
19	289	270.06	30	30	30	38	557	538.27	30	30	40
20	303	284.15	30	30	30	39	571	552.4	30	30	40
21	317	298.24	30	30	30	40	585	566.54	30	30	40
22	331	312.34	30	30	30	45	656	637.22	30	30	40
23	345	326.44	30	30	30	50	726	707.91	30	30	40
24	359	340.55	30	30	30	57	825	806.9	40	40	40
25	373	354.66	30	30	40	60	869	849.32	40	40	40
26	387	368.77	30	30	40	76	1095	1075.6	40	40	40

### 32B-1-2-3 (50.8X30.99mm)



Pitch	50.8
Roller	29.21
r	51
C	6
h1	29.4
L	28.8
h2	87.4
h3	146

Z	De	Dp	Simplex	Duplex	Triplex	Z	De	Dp	Simplex	Duplex	Triplex
			D	D	D				D	D	D
			mm	mm	mm				mm	mm	mm
8	153.2	132.74	25	25	25	24	409.7	389.18	30	30	40
9	169	148.54	25	25	25	25	425.8	405.33	30	30	40
10	185	164.39	25	25	25	26	441.9	421.44	30	30	40
11	200.8	180.31	30	30	30	27	458.1	437.59	30	30	40
12	216.8	196.29	30	30	30	28	474.2	453.69	30	30	40
13	232.8	212.29	30	30	30	29	492	469.85	30	30	40
14	248.8	228.29	30	30	30	30	506.5	486	30	30	40

15	264.8	244.3	30	30	30	32	538.8	518.27	30	/	/
16	280.9	260.4	30	30	30	35	589.5	566.71	30	30	40
17	296.9	276.46	30	30	30	38	635.5	615.16	40	40	40
18	313	292.55	30	30	30	40	670.3	647.47	40	40	40
19	329.1	308.66	30	30	30	45	751	728.24	40	40	40
20	345.2	324.71	30	30	30	50	831.8	809.04	40	40	40
21	361.3	340.82	30	30	40	57	945	922.16	40	40	40
22	377.5	356.98	30	30	40	60	993.4	970.65	40	40	40
23	393.6	373.08	30	30	40	76	1252	1229.3	40	40	40