

# PIGNONI E CORONE PER CATENE A RULLI

L'assortimento di pignoni e ruote per catene da noi prodotti, costituisce una risposta globale alle esigenze dell'industria nel settore delle trasmissioni meccaniche flessibili e rappresenta il risultato di una produzione finalizzata al conseguimento di eccellenti prestazioni tecniche e qualitative.

Il nostro programma di produzione comprende in pratica pignoni e ruote per catene realizzati in conformità ai principali e più recenti Standard ed alle Norme di Unificazione Internazionali UNI, ISO, DIN, ANSI ecc.

Le norme tuttavia definiscono per il vano delle ruote per catene e rulli, un profilo con dimensioni minime ed un profilo con dimensioni massime ed entro gli stessi deve risultare compreso il profilo reale.

Essendo piuttosto ampi i limiti di tolleranza che le norme lasciano alla discrezione del costruttore, si ravvisa la possibilità di scegliere un criterio di proporzionamento del profilo che possa risultare ottimizzato per quanto concerne la regolarità di trasmissione e la capacità del dente di sopportare sforzi più elevati.

Ciò ha condotto allo sviluppo sistematico di un insieme di profili unificati e geometricamente riproducibili con notevole fedeltà da utensili espressamente progettati al Computer ed il cui profilo di riferimento è protetto da know-how aziendale.

Elemento di pregio di questo profilo ottimizzato, caratteristica esclusiva della ditta **CHIARAVALLI Trasmissioni**, è quello di migliorare l'avvolgimento "poligonale" della catena sul pignone e sulla corona riducendone la discontinuità di moto che ne consegue anche nel caso di interassi e rapporti di trasmissione sfavorevoli. Ciò ci ha consentito di inserire a catalogo e di realizzare pignoni con bassissimo numero di denti.

Anche se il complesso ruota dentata-catena costituisce un organo di trasmissione piuttosto "rude" il rispetto di una buona precisione con errori di lavorazione contenuti non guasta, e ciò è assicurato dall'uso sistematico di macchine operatrici a Controllo Numerico e di tecnologie sviluppate per minimizzare lo sforzo e per migliorare il grado di finitura superficiale.

I pignoni e le ruote per catene a catalogo, vengono prodotti anche nella versione con calettatore a bussola conica sistema "Taper-Lock" particolarmente apprezzato nelle applicazioni che richiedono facilità di montaggio ed elevate recisioni di centratura.

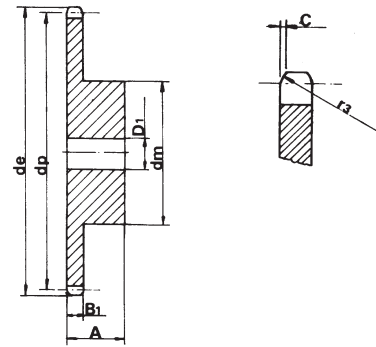
Completano il nostro programma di vendita catene a rulli semplici e multiple e catene speciali adatte ad ogni applicazione industriale e siamo altresì in grado di realizzare pignoni e corone per catene in esecuzione specifica, a disegno, in qualunque materiale e con trattamenti termici di tempra ad induzione e di cementazione e tempra su ruote e pignoni in acciaio.

# P I G N O N I

5 x 2.5 mm

per catene a rulli secondo DIN 8187 ISO/R 606

Z	d <sub>e</sub>	d <sub>p</sub>	SEMPLICI		
			d <sub>m</sub>	D1	A
8	15.2	13.06	7	4	10
9	16.8	14.62	8	5	10
10	18.3	16.18	9	5	10
11	19.9	17.75	11	6	10
12	21.5	19.32	12	6	10
13	23.0	20.89	14	6	10
14	24.6	22.47	15	6	10
15	26.2	24.04	16	6	10
16	27.8	25.63	18	8	13
17	29.4	27.20	18	8	13
18	30.9	28.79	18	8	13
19	32.5	30.38	18	8	13
20	34.1	31.96	18	8	13
21	35.7	33.54	20	8	13
22	37.3	35.13	20	8	13
23	38.9	36.72	20	8	13
24	40.5	38.30	20	8	13
25	42.0	39.89	20	8	13
26	43.6	41.48	25	8	15
27	45.2	43.07	25	8	15
28	46.8	44.65	25	8	15
29	48.4	46.25	25	8	15
30	50.0	47.83	25	8	15
31	51.6	49.42	30	8	15
32	53.2	51.01	30	8	15
33	54.8	52.60	30	8	15
34	56.3	54.19	30	8	15
35	57.9	55.78	30	8	15
36	59.5	57.37	30	8	15
37	61.1	58.96	30	8	15
38	62.7	60.54	30	8	15
39	64.3	62.13	30	8	15
40	65.9	63.73	30	8	15



## PIGNONE

mm

RAGGIO DENTE r <sub>3</sub>	5
LARGHEZZA RAGGIO C	0.6
LARGHEZZA DENTE PIGNONE B <sub>1</sub>	2.3

## CATENA

mm

PASSO	5
LARGHEZZA INTERNA	2.5
RULLO - Ø	3.2

MATERIALE: C 45 UNI 7845

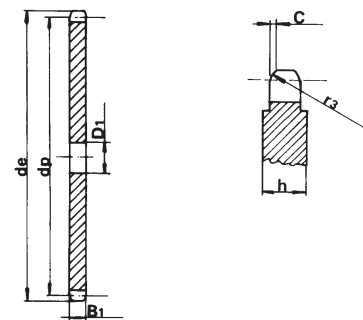
# C O R O N E

5 x 2.5 mm

per catene a rulli secondo DIN 8187 ISO/R 606

Z	d <sub>e</sub>	d <sub>p</sub>	S		Z	d <sub>e</sub>	d <sub>p</sub>	S	
			D <sub>1</sub>					D <sub>1</sub>	
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	8	
11	19.9	17.75	5		47	77.0	74.86	8	
12	21.5	19.32	5		48	78.6	76.45	8	
13	23.0	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	85.0	82.81	10	
17	29.4	27.20	6		53	86.6	84.40	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	38.30	8		60	97.7	95.53	10	
25	42.0	39.89	8		62	100.9	98.72	12	
26	43.6	41.48	8		64	104.1	101.90	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	50.0	47.83	8		70	113.6	111.44	12	
31	51.6	49.42	8		72	116.8	114.63	12	
32	53.2	51.01	8		75	121.6	119.40	12	
33	54.8	52.60	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	

A partire da Z.51 il disco ruota viene maggiorato h = 4 mm



## CORONA

mm

RAGGIO DENTE r <sub>3</sub>	5
LARGHEZZA RAGGIO C	0.6
LARGHEZZA DENTE CORONA B <sub>1</sub>	2.3

## CATENA

mm

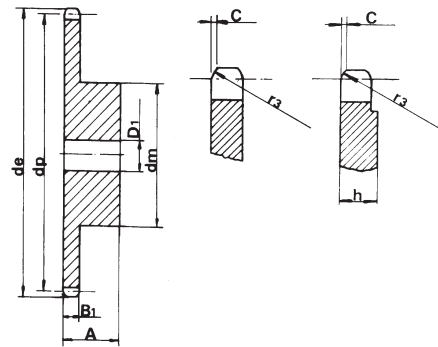
PASSO	5
LARGHEZZA INTERNA	2.5
RULLO - Ø	3.2

# P I G N O N I

**6 x 2.8 mm**

per catene a rulli secondo DIN 8187 ISO/R 606

Z.57 e Z.76 il disco viene maggiorato h = 4 mm



## PIGNONE mm

RAGGIO DENTE $r_3$	6
LARGHEZZA RAGGIO C	0.7
LARGHEZZA DENTE PIGNONI $B_1$	2.6

## CATENA mm

PASSO	6
LARGHEZZA INTERNA	2.8
RULLO - $\varnothing$	4

MATERIALE: C 45 UNI 7845

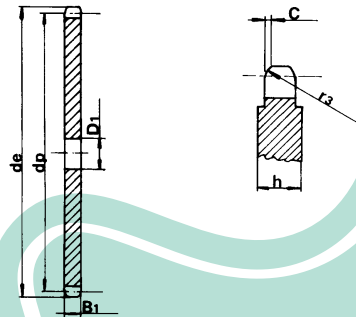
Z	$d_e$	$d_p$	SEMPLICI		
			$d_m$	$D_1$	A
8	18.0	15.67	9.8	5	10
9	19.9	17.54	11.5	5	10
10	21.7	19.42	13	6	10
11	23.6	21.30	14	6	10
12	25.4	23.18	16	6	10
13	27.3	25.05	18	8	10
14	29.2	26.96	20	8	10
15	31.0	28.86	20	8	10
16	33.0	30.76	20	8	13
17	35.0	32.65	20	8	13
18	36.9	34.55	20	8	13
19	38.8	36.44	20	8	13
20	40.7	38.34	20	8	13
21	42.6	40.25	25	8	13
22	44.5	42.16	25	8	13
23	46.4	44.06	25	8	13
24	48.3	45.96	25	8	13
25	50.2	47.87	25	8	13
26	52.1	49.76	30	8	15
27	54.0	51.67	30	8	15
28	55.9	53.58	30	8	15
29	57.8	55.50	30	8	15
30	59.8	57.42	30	8	15
31	61.7	59.31	30	8	15
32	63.6	61.21	30	8	15
33	65.5	63.11	30	8	15
34	67.4	65.02	30	8	15
35	69.3	66.93	30	8	15
36	71.2	68.84	30	8	15
37	73.1	70.75	30	8	15
38	75.0	72.66	30	8	15
39	76.9	74.57	30	8	15
40	78.9	76.47	30	8	15
45	88.5	86.01	40	10	16
50	98.0	95.55	50	12	20
57	111.4	108.93	50	12	20
76	147.6	145.19	60	12	20

# C O R O N E

**6 x 2.8 mm**

per catene a rulli secondo DIN 8187 ISO/R 606

A partire da Z.51 il disco ruota viene maggiorato h = 4 mm



## CORONA mm

RAGGIO DENTE $r_3$	6
LARGHEZZA RAGGIO C	0.7
LARGHEZZA DENTE CORONA $B_1$	2.6

## CATENA mm

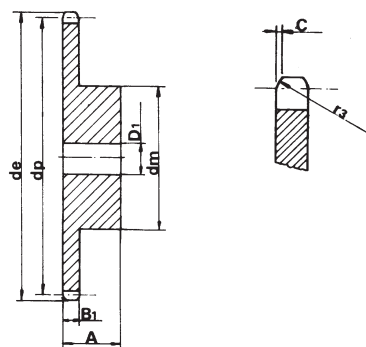
PASSO	6
LARGHEZZA INTERNA	2.8
RULLO - $\varnothing$	4

Z	$d_e$	$d_p$	S		S	
			$D_1$		$D_1$	
8	18.0	15.67	5		44	86.6
9	19.9	17.54	5		45	88.5
10	21.7	19.42	6		46	90.4
11	23.6	21.30	6		47	92.3
12	25.4	23.18	6		48	94.2
13	27.3	25.05	8		49	96.1
14	29.2	26.96	8		50	98.0
15	31.0	28.86	8		51	99.9
16	33.0	30.76	8		52	101.8
17	35.0	32.65	8		53	103.7
18	36.9	34.55	8		54	105.6
19	38.8	36.44	8		55	107.6
20	40.7	38.34	8		56	109.5
21	42.6	40.25	8		57	111.4
22	44.5	42.16	8		58	113.3
23	46.4	44.06	8		59	115.2
24	48.3	45.96	8		60	117.1
25	50.2	47.87	8		62	120.9
26	52.1	49.76	8		64	124.7
27	54.0	51.67	8		65	126.6
28	55.9	53.58	8		66	128.5
29	57.8	55.50	8		68	132.4
30	59.8	57.42	8		70	136.2
31	61.7	59.31	8		72	140.0
32	63.6	61.21	8		75	145.7
33	65.5	63.11	8		76	147.6
34	67.4	65.02	8		78	151.5
35	69.3	66.93	8		80	155.3
36	71.2	68.84	8		85	164.8
37	73.1	70.75	8		90	174.4
38	75.0	72.66	8		95	183.9
39	76.9	74.57	8		100	193.5
40	78.9	76.47	8		110	212.6
41	80.8	78.38	10		114	220.2
42	82.7	80.28	10		120	231.7
43	84.7	82.19	10		125	241.2

# P I G N O N I

1/4" x 1/8"

per catene a rulli secondo DIN 8188 ASA 25 ISO/R 606 - ANSI B 29.1



## PIGNONE

mm

RAGGIO DENTE $r_3$	6.4
LARGHEZZA RAGGIO C	0.7
LARGHEZZA DENTE PIGNONE $B_1$	2.9

## CATENA

mm

PASSO	6.35
LARGHEZZA INTERNA	3.18
RULLO - $\emptyset$	3.3

MATERIALE: C 45 UNI 7845

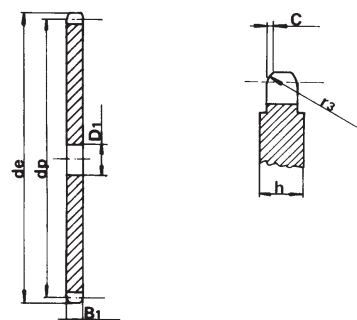
Z	$d_e$	$d_p$	SEMPLICI		
			$d_m$	D1	A
8	19.4	16.58	10	6	12
9	21.4	18.56	11.5	6	12
10	23.3	20.55	13	6	12
11	25.3	22.54	15	8	13
12	27.3	24.53	17	8	13
13	29.3	26.53	17	8	13
14	31.3	28.53	17	8	13
15	33.3	30.53	20	8	13
16	35.3	32.55	22	8	14
17	37.3	34.55	22	8	14
18	39.4	36.56	25	8	14
19	41.4	38.58	25	8	14
20	43.4	40.58	25	8	14
21	45.4	42.60	30	8	14
22	47.4	44.62	30	8	14
23	49.4	46.63	30	8	14
24	51.4	48.64	30	8	14
25	53.5	50.66	30	8	14
26	55.5	52.67	30	8	16
27	57.5	54.69	30	8	16
28	59.5	56.71	30	8	16
29	61.5	58.73	30	8	16
30	63.6	60.75	30	8	16
31	65.6	62.76	30	8	16
32	67.6	64.78	30	8	16
33	69.6	66.80	30	8	16
34	71.6	68.82	30	8	16
35	73.6	70.84	30	8	16
36	75.6	72.85	30	8	16
37	77.7	74.87	30	8	16
38	79.7	76.89	30	8	16
39	81.7	78.91	30	8	16
40	83.7	80.93	30	8	16

# C O R O N E

1/4" x 1/8"

per catene a rulli secondo DIN 8188 ASA 25 ISO/R 606 - ANSI B 29.1

A partire da Z.51 il disco ruota viene maggiorato  $h = 4$  mm



## CORONA

mm

RAGGIO DENTE $r_3$	6.4
LARGHEZZA RAGGIO C	0.7
LARGHEZZA DENTE CORONA $B_1$	2.9

## CATENA

mm

PASSO	6.35
LARGHEZZA INTERNA	3.18
RULLO - $\emptyset$	3.3

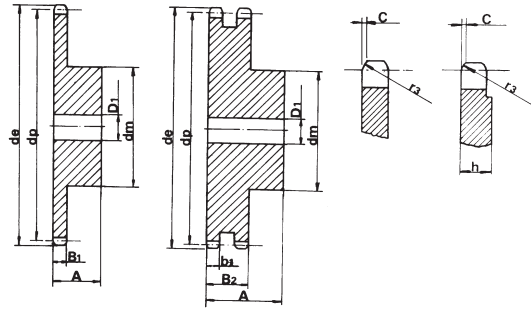
Z	$d_e$	$d_p$	S		Z	$d_e$	$d_p$	D1
			D1	S				
8	19.4	16.58	6		44	91.8	89.01	10
9	21.4	18.56	6		45	93.8	91.03	10
10	23.3	20.55	6		46	95.8	93.05	10
11	25.3	22.54	8		47	97.9	95.07	10
12	27.3	24.53	8		48	99.9	97.09	10
13	29.3	26.53	8		49	101.9	99.10	10
14	31.3	28.53	8		50	103.9	101.13	10
15	33.3	30.53	8		51	105.9	103.14	12
16	35.3	32.55	8		52	108.0	105.16	12
17	37.3	34.55	8		53	110.0	107.18	12
18	39.4	36.56	8		54	112.0	109.18	12
19	41.4	38.58	8		55	114.0	111.23	12
20	43.4	40.58	8		56	116.0	113.25	12
21	45.4	42.60	8		57	118.1	115.27	12
22	47.4	44.62	8		58	120.1	117.29	12
23	49.4	46.63	8		59	122.1	119.31	12
24	51.4	48.64	8		60	124.1	121.32	12
25	53.5	50.66	8		62	128.2	125.37	12
26	55.5	52.67	8		64	132.2	129.41	12
27	57.5	54.69	8		65	134.2	131.43	12
28	59.5	56.71	8		66	136.2	133.45	14
29	61.5	58.73	8		68	140.3	137.49	14
30	63.6	60.75	8		70	144.3	141.53	14
31	65.6	62.76	10		72	148.4	145.58	14
32	67.6	64.78	10		75	154.4	151.63	14
33	69.6	66.80	10		76	156.5	153.66	14
34	71.6	68.82	10		78	160.5	157.70	16
35	73.6	70.84	10		80	164.5	161.74	16
36	75.6	72.85	10		85	174.6	171.85	16
37	77.7	74.87	10		90	184.7	181.95	16
38	79.7	76.89	10		95	194.8	192.05	16
39	81.7	78.91	10		100	204.9	202.15	16
40	83.7	80.93	10		110	225.1	222.37	16
41	85.7	82.95	10		114	233.2	230.45	16
42	87.8	84.97	10		120	245.4	242.58	16
43	89.8	86.98	10		125	255.5	252.68	16

# P I G N O N I

**8 x 3 mm**

per catene a rulli secondo DIN 8187 ISO/R 606

Z.57 e Z.76 il disco viene maggiorato h = 4 mm



## PIGNONE

mm

RAGGIO DENTE $r_3$	8
LARGHEZZA RAGGIO C	1.0
LARGHEZZA DENTE PIGNONE $B_1$	2.8
LARGHEZZA DENTE PIGNONE $b_1$	2.7
LARGHEZZA DENTE PIGNONE $B_2$	8.3

## CATENA

mm

PASSO	8
LARGHEZZA INTERNA	3
RULLO - $\emptyset$	5

MATERIALE: C 45 UNI 7845

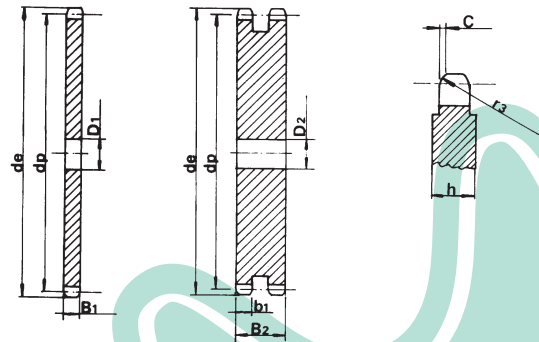
Z	$d_e$	$d_p$	SEMPlici			DOPPI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	24.0	20.90	13	6	12	12	8	18
9	26.6	23.39	15	6	12	15	8	18
10	29.2	25.89	17	8	12	17	8	18
11	31.7	28.39	18	8	13	19	10	18
12	34.2	30.91	20	8	13	21	10	18
13	36.7	33.42	23	8	13	24	10	18
14	39.2	35.95	25	8	13	26	10	18
15	41.7	38.48	28	8	13	29	10	18
16	44.3	41.01	30	8	14	32	10	20
17	46.8	43.53	30	8	14	34	10	20
18	49.3	46.07	30	8	14	37	10	20
19	51.9	48.61	30	8	14	39	10	20
20	54.4	51.14	30	8	14	40	10	20
21	57.0	53.68	35	8	14	40	10	20
22	59.5	56.21	35	8	14	40	10	20
23	62.0	58.75	35	8	14	40	10	20
24	64.6	61.29	35	8	14	40	10	20
25	67.5	63.83	35	8	14	40	10	20
28	69.5	66.37	40	10	16	50	12	22
27	72.2	68.91	40	10	16	50	12	22
28	74.8	71.45	40	10	16	50	12	22
29	77.3	73.99	40	10	16	50	12	22
30	79.8	76.53	40	10	16	50	12	22
31	82.4	79.08	40	10	16	60	12	22
32	84.9	81.61	40	10	16	60	12	22
33	87.5	84.16	40	10	16	60	12	22
34	90.0	86.70	40	10	16	60	12	22
35	92.5	89.25	40	10	16	60	12	22
36	95.0	91.79	40	10	16	60	12	22
37	97.6	94.33	40	10	16	60	12	22
38	100.2	96.88	40	10	16	60	12	22
39	102.7	99.42	40	10	16	60	12	22
40	105.3	101.97	40	10	16	60	12	22
45	118.0	114.69	60	12	20			
50	130.7	127.41	60	12	20			
57	148.6	145.22	80	14	20			
76	197.7	193.59	80	20	25			

# C O R O N E

**8 x 3 mm**

per catene a rulli secondo DIN 8187 ISO/R 606

A partire da Z.46 il disco ruota semplice viene maggiorato h = 4 mm



## CORONA

mm

RAGGIO DENTE $r_3$	8
LARGHEZZA RAGGIO C	1.0
LARGHEZZA DENTE CORONA $B_1$	2.8
LARGHEZZA DENTE CORONA $b_1$	2.7
LARGHEZZA DENTE CORONA $B_2$	8.3

## CATENA

mm

PASSO	8
LARGHEZZA INTERNA	3
RULLO - $\emptyset$	5

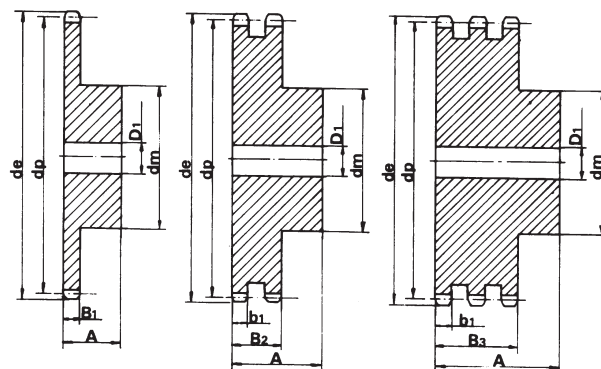
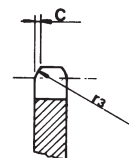
Z	$d_e$	$d_p$	S		D		Z	$d_e$	$d_p$	S		D	
			$D_1$	$D_2$	$D_1$	$D_2$				$D_1$	$D_2$		
8	24.0	20.90	6	6	44	115.5	112.14	12	14				
9	26.6	23.39	6	6	45	118.0	114.69	12	14				
10	29.2	25.89	8	8	46	120.6	117.23	12	14				
11	31.7	28.39	8	8	47	123.1	119.77	12	14				
12	34.2	30.91	8	8	48	125.6	122.32	12	14				
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	146.0	142.68	14	16				
21	57.0	53.68	8	10	57	148.6	145.22	14	16				
22	59.5	56.21	8	10	58	151.0	147.77	14	16				
23	62.0	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	162.0	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	169.6	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	90.0	86.70	10	12	78	202.8	198.68	20	20				
35	92.5	89.25	10	12	80	207.9	203.77	20	20				
36	95.0	91.79	10	12	85	220.6	216.50	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	105.3	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	310.0	305.61	20	20				
43	112.9	109.60	12	14	125	322.5	318.34	20	20				



# P I G N O N I

3/8" x 7/32"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	10
LARGHEZZA RAGGIO C	1
LARGHEZZA DENTE PIGNONE $B_1$	5.3
LARGHEZZA DENTE PIGNONE $b_1$	5.2
LARGHEZZA DENTE PIGNONE $B_2$	15.4
LARGHEZZA DENTE PIGNONE $B_3$	25.6

## CATENA

mm

PASSO	9.525
LARGHEZZA INTERNA	5.72
RULLO- $\emptyset$	6.35

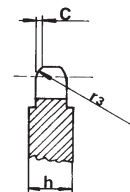
MATERIALE: C 45 UNI 7845

Z	$d_e$	$d_p$	SEMPLICI			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	28.0	24.89	15	6	22	15	6	22	15	6	32
9	31.0	27.85	18	8	22	18	8	22	18	8	32
10	34.0	30.82	20	8	22	20	8	22	20	10	32
11	37.0	33.80	22	8	25	22	10	25	22	10	35
12	40.0	36.80	25	8	25	25	10	25	25	10	35
13	43.0	39.79	28	10	25	28	10	25	28	10	35
14	46.3	42.80	31	10	25	31	10	25	31	12	35
15	49.3	45.81	34	10	25	34	10	25	34	12	35
16	52.3	48.82	37	10	28	37	12	30	37	12	35
17	55.3	51.83	40	10	28	40	12	30	40	12	35
18	58.3	54.85	43	10	28	43	12	30	43	12	35
19	61.3	57.87	45	10	28	46	12	30	46	12	35
20	64.3	60.89	46	10	28	49	12	30	49	12	35
21	68.0	63.91	48	12	28	52	12	30	52	14	40
22	71.0	66.93	50	12	28	55	12	30	55	14	40
23	73.5	69.95	52	12	28	58	12	30	58	14	40
24	77.0	72.97	54	12	28	61	12	30	61	14	40
25	80.0	76.00	57	12	28	64	12	30	64	14	40
26	83.0	79.02	60	12	28	67	12	30	67	14	40
27	86.0	82.05	60	12	28	70	12	30	70	14	40
28	89.0	85.07	60	12	28	73	12	30	73	14	40
29	92.0	88.09	60	12	28	76	12	30	76	14	40
30	94.7	91.12	60	12	30	79	12	30	79	14	40
31	98.3	94.15	65	14	30	80	16	30	80	16	40
32	101.3	97.17	65	14	30	80	16	30	80	16	40
33	104.3	100.20	65	14	30	80	16	30	80	16	40
34	107.3	103.23	65	14	30	80	16	30	85	16	40
35	110.4	106.26	65	14	30	80	16	30	85	16	40
36	113.4	109.29	70	16	30	90	16	30	90	16	40
37	116.4	112.32	70	16	30	90	16	30	90	16	40
38	119.5	115.35	70	16	30	90	16	30	90	16	40
39	122.5	118.37	70	16	30	90	16	30	90	16	40
40	125.5	121.40	70	16	30	90	16	30	90	16	40

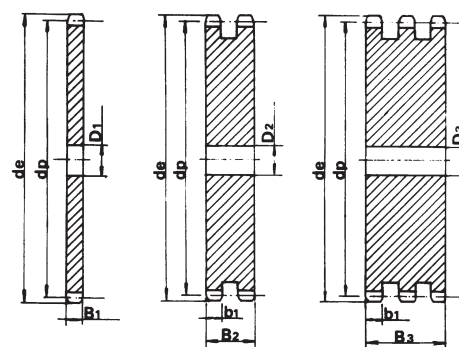
# C O R O N E

3/8" x 7/32"

per catene a rulli secondo  
DIN 8187 ISO/R 606



A partire da Z.100 il disco ruota semplice viene maggiorato  $h = 7$  mm



## CORONA

mm

RAGGIO DENTE $r_3$	10
LARGHEZZA RAGGIO C	1
LARGHEZZA DENTE CORONA $B_1$	5.3
LARGHEZZA DENTE CORONA $b_1$	5.2
LARGHEZZA DENTE CORONA $B_2$	15.4
LARGHEZZA DENTE CORONA $B_3$	25.6

## CATENA

mm

PASSO	9.525
LARGHEZZA INTERNA	5.72
RULLO - $\emptyset$	6.35

Z	$d_e$	$d_p$	S			D			T		
			$D_1$	$D_2$	$D_3$	Z	$d_e$	$d_p$	$D_1$	$D_2$	$D_3$
8	28.0	24.89	6	6	6	44	137.6	133.52	16	16	16
9	31.0	27.85	7	8	8	45	140.7	136.55	16	16	16
10	34.0	30.82	7	8	10	46	143.7	139.58	16	16	16
11	37.0	33.80	8	10	10	47	146.7	142.61	16	16	16
12	40.0	36.80	8	10	10	48	149.7	145.64	16	16	16
13	43.0	39.79	8	10	10	49	152.7	148.66	16	16	16
14	46.3	42.80	8	10	12	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	12	55	170.8	166.85	16	16	20
20	64.3	60.89	10	12	12	56	173.8	169.88	16	16	20
21	68.0	63.91	10	12	14	57	176.9	172.91	16	16	20
22	71.0	66.93	10	12	14	58	179.9	175.93	16	16	20
23	73.5	69.95	10	12	14	59	183.0	178.96	16	16	20
24	77.0	72.97	10	12	14	60	186.0	181.99	16	16	20
25	80.0	76.02	10	12	14	62	192.1	188.06	20	20	20
26	83.0	79.02	10	12	14	64	198.2	194.12	20	20	20
27	86.0	82.02	10	12	14	65	201.6	197.15	20	20	20
28	89.0	85.07	10	12	14	66	204.6	200.18	20	20	25
29	92.0	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	100.20	12	14	16	76	234.9	230.49	20	20	25
34	107.3	103.23	12	14	16	78	241.0	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	115.35	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	121.40	12	14	16	110	338.0	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

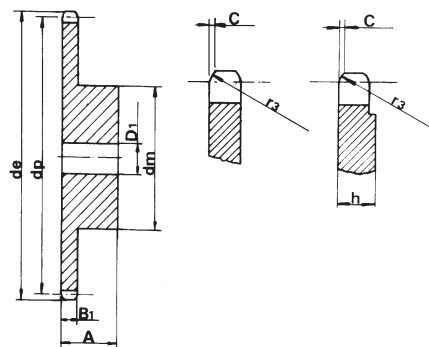
# P I G N O N I

Z	d <sub>e</sub>	d <sub>p</sub>	SEMPLICI		
			d <sub>m</sub>	D <sub>1</sub>	A
8	37.2	33.18	21	8	14
9	41.5	37.13	25	8	14
10	46.2	41.10	28	8	14
11	49.6	45.07	31	8	16
12	53.9	49.07	35	8	16
13	58.4	53.06	39	8	16
14	62.8	57.07	43	8	16
15	66.8	61.09	47	8	16
16	70.9	65.10	50	10	18
17	74.9	69.11	50	10	18
18	78.9	73.14	50	10	18
19	82.9	77.16	50	10	18
20	86.9	81.19	50	10	18
21	91.0	85.22	60	12	20
22	95.0	89.24	60	12	20
23	99.0	93.27	60	12	20
24	103.0	97.29	60	12	20
25	107.1	101.33	60	12	20
26	111.2	105.36	70	16	20
27	115.4	109.40	70	16	20
28	119.4	113.42	70	16	20
29	123.4	117.46	70	16	20
30	127.5	121.50	70	16	20
31	131.5	125.54	70	16	20
32	135.5	129.56	70	16	20
33	139.6	133.60	70	16	20
34	143.6	137.64	70	16	20
35	147.6	141.68	70	16	20
36	151.7	145.72	70	16	25
37	155.7	149.76	70	16	25
38	159.8	153.80	70	16	25
39	163.8	157.83	70	16	25
40	167.8	161.87	70	16	25

## 1/2" x 1/8"

per catene a rulli secondo DIN 8187 ISO/R 606

A partire da Z.31 il disco ruota viene maggiorato h = 5 mm



### PIGNONE mm

RAGGIO DENTE r <sub>3</sub>	13
LARGHEZZA RAGGIO C	1.0
LARGHEZZA DENTE PIGNONE B <sub>1</sub>	3

### CATENA mm

PASSO	12.7
LARGHEZZA INTERNA	3.3
RULLO - ø	7.75

MATERIALE: C 45 UNI 7845

# C O R O N E

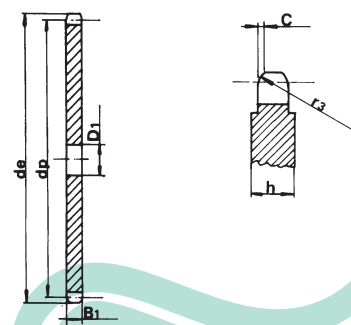
Z	d <sub>e</sub>	d <sub>p</sub>	S		Z	d <sub>e</sub>	d <sub>p</sub>	S	
			D <sub>1</sub>					D <sub>1</sub>	
8	37.2	33.18	8		43	179.5	173.99	16	
9	41.5	37.13	8		44	183.5	178.03	16	
10	46.2	41.10	8		45	187.5	182.07	16	
11	49.6	45.07	8		46	191.6	186.10	20	
12	53.9	49.07	8		47	195.6	190.14	20	
13	58.4	53.06	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	65.10	10		51	211.8	206.30	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	224.0	218.43	20	
20	86.9	81.19	10		55	228.0	222.46	20	
21	91.0	85.22	10		56	232.1	226.50	20	
22	95.0	89.24	10		57	236.1	230.54	20	
23	99.0	93.27	10		58	240.2	234.58	20	
24	103.0	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	109.40	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	266.90	25	
30	127.5	121.50	12		68	280.9	274.99	25	
31	131.5	125.54	12		70	289.0	283.07	25	
32	135.5	129.56	12		72	297.1	291.16	25	
33	139.6	133.60	12		76	313.3	307.33	25	
34	143.6	137.64	12		78	321.4	315.40	25	
35	147.6	141.68	12		80	329.4	323.48	25	
36	151.7	145.72	16		85	349.7	343.70	25	
37	155.7	149.76	16		90	369.9	363.90	25	
38	159.8	153.80	16		95	390.1	384.10	25	
39	163.8	157.83	16		100	410.3	404.31	25	
40	167.8	161.87	16		110	450.7	444.74	25	
41	171.4	165.91	16		114	466.9	460.90	25	
42	175.4	169.95	16		120	491.2	485.16	25	
					125	511.4	505.37	25	

## 1/2" x 1/8"

per catene a rulli secondo DIN 8187 ISO/R 606

A partire da Z.30 il disco ruota viene maggiorato h = 4 mm

A partire da Z.90 il disco ruota viene maggiorato h = 6 mm



### CORONA mm

RAGGIO DENTE r <sub>3</sub>	13
LARGHEZZA RAGGIO C	1.0
LARGHEZZA DENTE CORONA B <sub>1</sub>	3

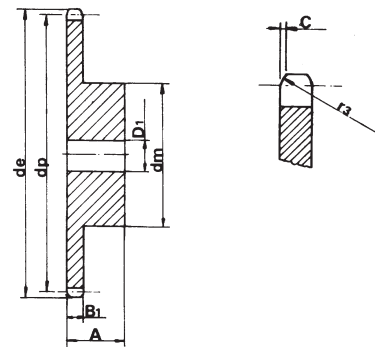
### CATENA mm

PASSO	12.7
LARGHEZZA INTERNA	3.3
RULLO - ø	7.75

# P I G N O N I

1/2" x 3/16"

per catene a rulli secondo DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE PIGNONE $B_1$	4.5

## CATENA

mm

PASSO	12.7
LARGHEZZA INTERNA	4.88
RULLO - $\emptyset$	7.75

MATERIALE: C 45 UNI 7845

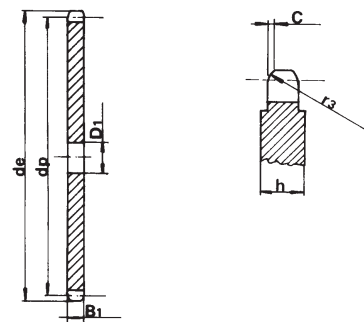
Z	$d_e$	$d_p$	SEMPLICI		
			$d_m$	$D_1$	A
8	38.5	33.18	21	8	14
9	41.5	37.13	25	8	14
10	46.2	41.10	28	8	14
11	49.6	45.07	31	8	16
12	53.9	49.07	35	8	16
13	58.4	53.06	39	8	16
14	62.8	57.07	43	8	16
15	66.8	61.09	47	8	16
16	70.9	65.10	50	10	18
17	74.9	69.11	50	10	18
18	78.9	73.14	50	10	18
19	82.9	77.16	50	10	18
20	88.9	81.19	50	10	18
21	91.0	85.22	60	12	20
22	95.0	89.24	60	12	20
23	99.0	93.27	60	12	20
24	103.0	97.29	60	12	20
25	107.1	101.33	60	12	20
26	111.2	105.36	70	16	20
27	115.4	109.40	70	16	20
28	119.4	113.42	70	16	20
29	123.4	117.46	70	16	20
30	127.5	121.50	70	16	20
31	131.5	125.54	70	16	20
32	135.5	129.56	70	16	20
33	139.6	133.60	70	16	20
34	143.6	137.64	70	16	20
35	147.6	141.68	70	16	20
36	151.7	145.72	70	16	25
37	155.7	149.76	70	16	25
38	159.8	153.80	70	16	25
39	163.8	157.83	70	16	25
40	167.8	161.87	70	16	25

# C O R O N E

1/2" x 3/16"

per catene a rulli secondo DIN 8187 ISO/R 606

A partire da Z.90 il disco ruota viene maggiorato  $h = 6$  mm



## CORONA

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE CORONA $B_1$	4.3 $\pm 0.2$

## CATENA

mm

PASSO	12.7
LARGHEZZA RAGGIO	4.88
RULLO - $\emptyset$	7.75

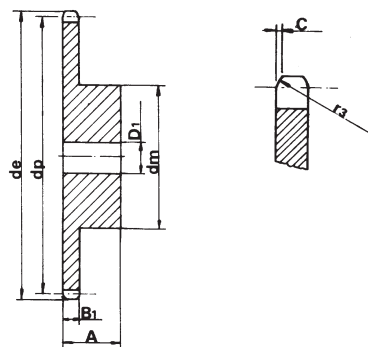
Z	$d_e$	$d_p$	S		S		
			$D_1$		$D_1$		
8	38.5	33.18	8	43	179.5	173.99	16
9	41.5	37.13	8	44	183.5	178.03	16
10	46.2	41.10	8	45	187.5	182.07	16
11	49.6	45.07	8	46	191.6	186.10	20
12	53.9	49.07	8	47	195.6	190.14	20
13	58.4	53.06	8	48	199.7	194.18	20
14	62.8	57.07	8	49	203.7	198.22	20
15	66.8	61.09	8	50	207.8	202.26	20
16	70.9	65.10	10	51	211.8	206.30	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	224.0	218.43	20
20	86.9	81.19	10	55	228.0	222.46	20
21	91.0	85.22	10	56	232.1	226.50	20
22	95.0	89.24	10	57	236.1	230.54	20
23	99.0	93.27	10	58	240.2	234.58	20
24	103.0	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	109.40	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	266.90	25
30	127.5	121.50	12	68	280.9	274.99	25
31	131.5	125.54	12	70	289.0	283.07	25
32	135.5	129.56	12	72	297.1	291.16	25
33	139.6	133.60	12	76	313.3	307.33	25
34	143.6	137.64	12	78	321.4	315.40	25
35	147.6	141.68	12	80	329.4	323.48	25
36	151.7	145.72	16	85	349.7	343.70	25
37	155.7	149.76	16	90	369.9	363.90	25
38	159.8	153.80	16	95	390.1	384.10	25
39	163.8	157.83	16	100	410.3	404.31	25
40	167.8	161.87	16	110	450.7	444.74	25
41	171.4	165.91	16	114	466.9	460.90	25
42	175.4	169.95	16	120	491.2	485.16	25
				125	511.4	505.37	25



# P I G N O N I

## 1/2" x 1/4" - rullo 7.75

per catene a rulli secondo DIN 8187 ISO/R 606



### PIGNONE

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE PIGNONE $B_1$	5.9

### CATENA

mm

PASSO	12.7
LARGHEZZA INTERNA	6.4
RULLO - $\emptyset$	7.75

MATERIALE :C 45 UNI 7845

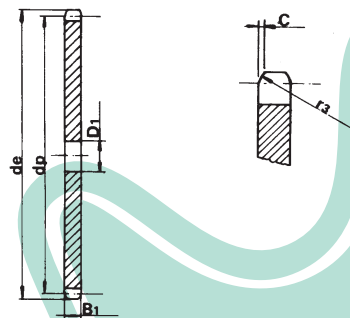
Z	$d_e$	$d_p$	$d_m$	$D_1$	A
8	38.5	33.18	20	10	25
9	41.5	37.13	24	10	25
10	46.2	41.10	26	10	25
11	49.6	45.07	29	10	25
12	53.9	49.07	33	10	28
13	58.4	53.06	37	10	28
14	62.8	57.07	41	10	28
15	66.8	61.09	45	10	28
16	70.9	65.10	50	12	28
17	74.9	69.11	52	12	28
18	78.9	73.14	56	12	28
19	82.9	77.16	60	12	28
20	86.9	81.19	64	12	28
21	91.0	85.22	68	14	28
22	95.0	89.24	70	14	28
23	99.0	93.27	70	14	28
24	103.0	97.29	70	14	28
25	107.1	101.33	70	14	28
26	111.2	105.36	70	16	30
27	115.4	109.40	70	16	30
28	119.4	113.42	70	16	30
29	123.4	117.46	80	16	30
30	127.5	121.50	80	16	30
31	131.5	125.54	90	16	30
32	135.5	129.56	90	16	30
33	139.6	133.60	90	16	30
34	143.6	137.64	90	16	30
35	147.6	141.68	90	16	30
36	151.7	145.72	90	16	35
37	155.7	149.76	90	16	35
38	159.8	153.80	90	16	35
39	163.8	157.83	90	16	35
40	167.8	161.87	90	16	35

Pignoni ad esaurimento

# C O R O N E

## 1/2" x 1/4" - rullo 7.75

per catene a rulli secondo DIN 8187 ISO/R 606



### CORONA

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE CORONA $B_1$	5.9

### CATENA

mm

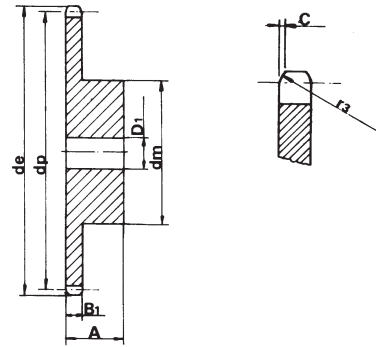
PASSO	12.7
LARGHEZZA RAGGIO	6.4
RULLO - $\emptyset$	7.75

Z	$d_e$	$d_p$	$D_1$	Z	$d_e$	$d_p$	$D_1$
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	41.10	8	45	187.5	182.07	16
11	49.6	45.07	8	46	191.6	186.10	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	65.10	10	51	211.8	206.30	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	224.0	218.43	20
20	86.9	81.19	10	55	228.0	222.46	20
21	91.0	85.22	10	56	232.1	226.50	20
22	95.0	89.24	10	57	236.1	230.54	20
23	99.0	93.27	10	58	240.2	234.58	20
24	103.0	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	109.40	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	266.90	25
30	127.5	121.50	12	68	280.9	274.99	25
31	131.5	125.54	12	70	289.0	283.07	25
32	135.5	129.56	12	72	297.1	291.16	25
33	139.6	133.60	12	76	313.3	307.33	25
34	143.6	137.64	12	78	321.4	315.40	25
35	147.6	141.68	12	80	329.4	323.48	25
36	151.7	145.72	16	85	349.7	343.70	25
37	155.7	149.76	16	90	369.9	363.90	25
38	159.8	153.80	16	95	390.1	384.10	25
39	163.8	157.83	16	100	410.3	404.31	25
40	167.8	161.87	16	110	450.7	444.74	25
41	171.4	165.91	16	114	466.9	460.90	25
42	175.4	169.95	16	120	491.2	485.16	25
				125	511.4	505.37	25

# P I G N O N I

## 1/2" x 1/4" - rullo 8.51

per catene a rulli secondo DIN 8187 ISO/R 606



### PIGNONE mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE PIGNONE $B_1$	5.9

### CATENA mm

PASSO	12.7
LARGHEZZA INTERNA	6.4
RULLO - $\emptyset$	8.51

MATERIALE: C 45 UNI 7845

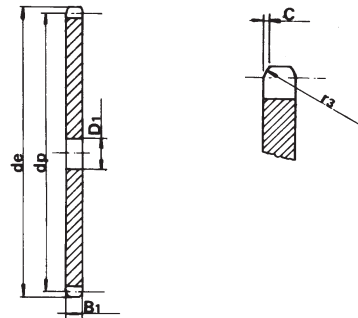
Z	$d_e$	$d_p$	SEMPLICI		
			$d_m$	$D_1$	A
8	37.2	33.18	20	10	25
9	41.0	37.13	24	10	25
10	45.2	41.10	26	10	25
11	48.7	45.07	29	10	25
12	53.0	49.07	33	10	28
13	57.4	53.06	37	10	28
14	61.8	57.07	41	10	28
15	65.5	61.09	45	10	28
16	69.5	65.10	50	12	28
17	73.6	69.11	52	12	28
18	77.8	73.14	56	12	28
19	81.7	77.16	60	12	28
20	85.8	81.19	64	12	28
21	89.7	85.22	68	14	28
22	93.8	89.24	70	14	28
23	98.2	93.27	70	14	28
24	101.8	97.29	70	14	28
25	105.8	101.33	70	14	28
26	110.0	105.36	70	16	30
27	114.0	109.40	70	16	30
28	118.0	113.42	70	16	30
29	122.0	117.46	80	16	30
30	126.1	121.50	80	16	30
31	130.2	125.54	90	16	30
32	134.3	129.56	90	16	30
33	138.4	133.60	90	16	30
34	142.6	137.64	90	16	30
35	146.7	141.68	90	16	30
36	151.0	145.72	90	16	35
37	154.6	149.76	90	16	35
38	158.6	153.80	90	16	35
39	162.7	157.83	90	16	35
40	166.8	161.87	90	16	35

Pignoni ad esaurimento

# C O R O N E

## 1/2" x 1/4" - rullo 8.51

per catene a rulli secondo  
DIN 8187 ISO/R 606



### CORONA mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE CORONA $B_1$	5.9

### CATENA mm

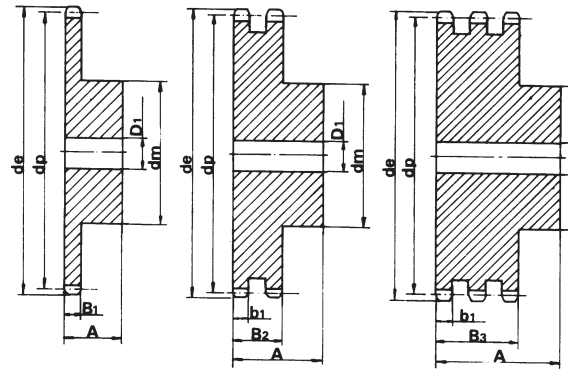
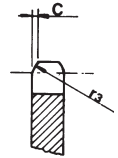
PASSO	12.7
LARGHEZZA INTERNA	6.4
RULLO - $\emptyset$	8.51

Z	$d_e$	$d_p$	S			S		
			$D_1$	Z	$d_e$	$d_p$	$D_1$	
8	37.2	33.18	8	43	179.7	173.99	16	
9	41.0	37.13	8	44	183.8	178.03	16	
10	45.2	41.10	8	45	188.0	182.07	16	
11	48.7	45.07	8	46	192.1	186.10	20	
12	53.0	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	65.10	10	51	212.1	206.30	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	232.2	226.50	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	110.0	105.36	12	62	256.9	250.75	20	
27	114.0	109.40	12	64	265.1	258.82	20	
28	118.0	113.42	12	65	269.0	262.86	20	
29	122.0	117.46	12	66	273.0	266.90	25	
30	126.1	121.50	12	68	281.0	274.99	25	
31	130.2	125.54	12	70	289.0	283.07	25	
32	134.2	129.56	12	72	297.2	291.16	25	
33	138.4	133.60	12	76	313.3	307.33	25	
34	142.6	137.64	12	78	321.4	315.40	25	
35	146.7	141.68	12	80	329.4	323.48	25	
36	151.0	145.72	16	85	349.0	343.70	25	
37	154.6	149.76	16	90	369.9	363.90	25	
38	158.6	153.80	16	95	390.1	384.10	25	
39	162.7	157.83	16	100	410.3	404.31	25	
40	166.8	161.87	16	110	450.7	444.74	25	
41	171.4	165.91	16	114	466.9	460.90	25	
42	175.4	169.95	16	120	491.2	485.16	25	
				125	511.3	505.37	25	

# P I G N O N I

1/2" x 5/16"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE PIGNONE $B_1$	7.2
LARGHEZZA DENTE PIGNONE $b^1$	7
LARGHEZZA DENTE PIGNONE $B_2$	21
LARGHEZZA DENTE PIGNONE $B_3$	34.9

## CATENA

mm

PASSO	12.7
LARGHEZZA INTERNA	7.75
RULLO - $\emptyset$	8.51

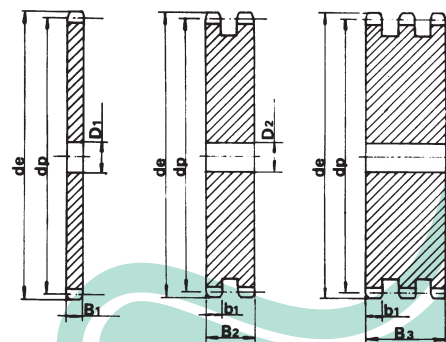
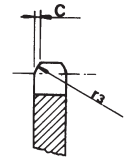
MATERIALE: C 45 UNI 7845

Z	$d_e$	$d_p$	SEMPLICI			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	37.2	33.18	20	10	25	20	10	32	20	10	46
9	41.0	37.13	24	10	25	24	10	32	24	12	46
10	45.2	41.10	26	10	25	28	10	32	28	12	46
11	48.7	45.07	29	10	25	32	12	35	32	14	50
12	53.0	49.07	33	10	28	35	12	35	35	14	50
13	57.4	53.06	37	10	28	38	12	35	38	14	50
14	61.8	57.07	41	10	28	42	12	35	42	14	50
15	65.5	61.09	45	10	28	46	12	35	46	14	50
16	69.5	65.10	50	12	28	50	14	35	50	16	50
17	73.6	69.11	52	12	28	54	14	35	54	16	50
18	77.8	73.14	56	12	28	58	14	35	58	16	50
19	81.7	77.16	60	12	28	62	14	35	62	16	50
20	85.8	81.19	64	12	28	66	14	35	66	16	50
21	89.7	85.22	68	12	28	70	16	40	70	20	55
22	93.8	89.24	70	12	28	70	16	40	70	20	55
23	98.2	93.27	70	14	28	70	16	40	70	20	55
24	101.8	97.29	70	14	28	75	16	40	75	20	55
25	105.8	101.33	70	14	28	80	16	40	80	20	55
26	110.0	105.36	70	16	30	85	20	40	85	20	55
27	114.0	109.40	70	16	30	85	20	40	85	20	55
28	118.0	113.42	70	16	30	90	20	40	90	20	55
29	122.0	117.46	80	16	30	95	20	40	95	20	55
30	126.1	121.50	80	16	30	100	20	40	100	20	55
31	130.2	125.54	90	16	30	100	20	40	110	20	55
32	134.3	129.56	90	16	30	100	20	40	110	20	55
33	138.4	133.60	90	16	30	100	20	40	110	20	55
34	142.6	137.64	90	16	30	100	20	40	110	20	55
35	146.7	141.68	90	16	30	100	20	40	110	20	55
36	151.0	145.72	90	16	35	110	20	40	120	25	55
37	154.6	149.76	90	16	35	110	20	40	120	25	55
38	158.6	153.80	90	16	35	110	20	40	120	25	55
39	162.7	157.83	90	16	35	110	20	40	120	25	55
40	166.8	161.87	90	16	35	110	20	40	120	25	55

# C O R O N E

1/2" x 5/16"

per catene a rulli secondo  
IN 8187 ISO/R 606



## CORONA

mm

RAGGIO DENTE $r_3$	13
LARGHEZZA RAGGIO C	1.3
LARGHEZZA DENTE CORONA $B_1$	7.2
LARGHEZZA DENTE CORONA $b^1$	7
LARGHEZZA DENTE CORONA $B_2$	21
LARGHEZZA DENTE CORONA $B_3$	34.9

## CATENA

mm

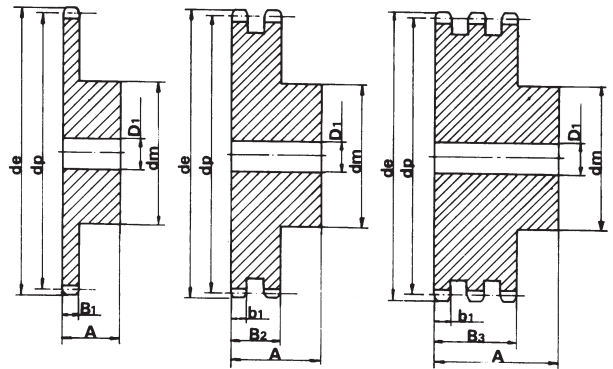
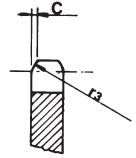
PASSO	12.7
LARGHEZZA INTERNA	7.75
RULLO - $\emptyset$	8.51

Z	$d_e$	$d_p$	S D T			Z	$d_e$	$d_p$	S D T		
			$D_1$	$D_2$	$D_3$				$D_1$	$D_2$	$D_3$
8	37.2	33.18	8	10	10	44	183.8	178.03	20	20	25
9	41.0	37.13	8	10	12	45	188.0	182.07	20	20	25
10	45.2	41.10	8	10	12	46	192.1	186.10	20	20	25
11	48.7	45.07	10	12	14	47	198.2	190.14	20	20	25
12	53.0	49.07	10	12	14	48	200.3	194.18	20	20	25
13	57.4	53.06	10	12	14	49	204.3	198.22	20	20	25
14	61.8	57.07	10	12	14	50	208.3	202.26	20	20	25
15	65.5	61.09	10	12	14	51	212.1	206.30	20	25	25
16	69.5	65.10	10	14	16	52	216.1	210.34	20	25	25
17	73.6	69.11	10	14	16	53	220.2	214.37	20	25	25
18	77.8	73.14	10	14	16	54	224.1	218.43	20	25	25
19	81.7	77.16	10	14	16	55	228.1	222.46	20	25	25
20	85.8	81.19	10	14	16	56	232.2	226.50	20	25	25
21	89.7	85.22	12	16	20	57	236.4	230.54	20	25	25
22	93.8	89.24	12	16	20	58	240.5	234.58	20	25	25
23	98.2	93.27	12	16	20	59	244.5	238.62	20	25	25
24	101.8	97.29	12	16	20	60	248.6	242.66	20	25	25
25	105.8	101.33	12	16	20	62	256.9	250.75	25	25	25
26	110.0	105.36	16	16	20	64	265.1	258.82	25	25	25
27	114.0	109.40	16	16	20	65	269.0	262.86	25	25	25
28	118.0	113.42	16	16	20	66	273.0	266.90	25	25	25
29	122.0	117.46	16	16	20	68	281.0	274.99	25	25	25
30	126.1	121.50	16	16	20	70	289.0	283.07	25	25	25
31	130.2	125.54	16	16	20	72	297.2	291.16	25	25	25
32	134.3	129.56	16	16	20	75	309.2	303.27	25	25	25
33	138.4	133.60	16	16	20	76	313.3	307.33	25	25	25
34	142.6	137.64	16	16	20	78	321.4	315.40	25	25	25
35	146.7	141.68	16	16	20	80	329.4	323.48	25	25	25
36	151.0	145.72	16	20	25	85	349.0	343.70	25	25	25
37	154.6	149.76	16	20	25	90	369.9	363.90	25	25	25
38	158.6	153.80	16	20	25	95	390.1	384.11	25	25	25
39	162.7	157.83	16	20	25	100	410.3	404.32	25	25	25
40	166.8	161.87	16	20	25	110	450.7	444.74	25	25	25
41	171.4	165.91	20	20	25	114	466.9	460.90	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

# P I G N O N I

5/8" x 3/8"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	16
LARGHEZZA RAGGIO C	1.6
LARGHEZZA DENTE PIGNONE $B_1$	9.1
LARGHEZZA DENTE PIGNONE $b^1$	9
LARGHEZZA DENTE PIGNONE $B_2$	25.5
LARGHEZZA DENTE PIGNONE $B_3$	42.1

## CATENA

mm

PASSO	15.875
LARGHEZZA INTERNA	9.65
RULLO - $\emptyset$	10.16

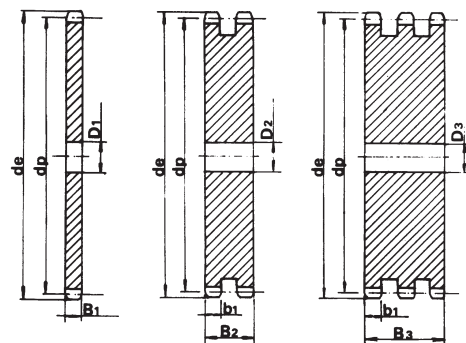
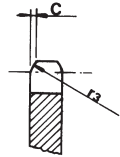
MATERIALE: C 45 UNI 7845

Z	$d_e$	$d_p$	SEMPLICI			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	47.0	41.48	25	10	25	25	12	40	25	12	55
9	52.6	46.42	30	10	25	30	12	40	30	12	55
10	57.5	51.37	35	10	25	35	12	40	35	16	55
11	63.0	56.34	37	12	30	39	14	40	39	16	55
12	68.0	61.34	42	12	30	44	14	40	44	16	55
13	73.0	66.32	47	12	30	49	14	40	49	16	55
14	78.0	71.34	52	12	30	54	14	40	54	16	55
15	83.0	76.36	57	12	30	59	14	40	59	16	55
16	88.0	81.37	60	12	30	64	16	45	64	16	60
17	93.0	86.39	60	12	30	69	16	45	69	16	60
18	98.3	91.42	70	14	30	74	16	45	74	16	60
19	103.3	96.45	70	14	30	79	16	45	79	16	60
20	108.4	101.49	75	14	30	84	16	45	84	16	60
21	113.4	106.52	75	16	30	85	16	45	85	20	60
22	118.0	111.55	80	16	30	90	16	45	90	20	60
23	123.4	116.58	80	16	30	95	16	45	95	20	60
24	128.3	121.62	80	16	30	100	16	45	100	20	60
25	134.0	126.66	80	16	30	105	16	45	105	20	60
26	139.0	131.70	85	20	35	110	20	45	110	20	60
27	144.0	136.75	85	20	35	110	20	45	110	20	60
28	148.7	141.78	90	20	35	115	20	45	115	20	60
29	153.8	146.83	90	20	35	115	20	45	115	20	60
30	158.8	151.87	90	20	35	120	20	45	120	20	60
31	163.9	156.92	95	20	35	120	20	45	120	20	60
32	168.9	161.95	95	20	35	120	20	45	120	20	60
33	174.5	167.00	95	20	35	120	20	45	120	20	60
34	179.0	172.05	95	20	35	120	20	45	120	20	60
35	184.1	177.10	95	20	35	120	20	45	120	20	60
36	189.1	182.15	100	20	35	120	20	45	120	25	60
37	194.2	187.20	100	20	35	120	20	45	120	25	60
38	199.2	192.24	100	20	35	120	20	45	120	25	60
39	204.2	197.29	100	20	35	120	20	45	120	25	60
40	209.3	202.34	100	20	35	120	20	45	120	25	60

# C O R O N E

5/8" x 3/8"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA

mm

RAGGIO DENTE $r_3$	16
LARGHEZZA RAGGIO C	1.6
LARGHEZZA DENTE CORONA $B_1$	9.1
LARGHEZZA DENTE CORONA $b^1$	9
LARGHEZZA DENTE CORONA $B_2$	25.5
LARGHEZZA DENTE CORONA $B_3$	42.1

## CATENA

mm

PASSO	15.875
LARGHEZZA INTERNA	9.65
RULLO - $\emptyset$	10.16

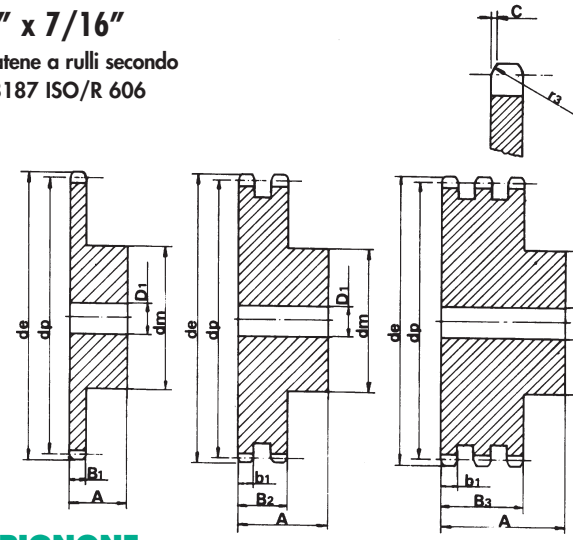
Z	$d_e$	$d_p$	S			D			T		
			$D_1$	$D_2$	$D_3$	$D_1$	$D_2$	$D_3$	$D_1$	$D_2$	$D_3$
8	47.0	41.48	10	12	12	44	230.0	222.53	20	20	25
9	52.6	46.42	10	12	12	45	235.0	227.58	20	20	25
10	57.5	51.37	10	12	16	46	240.1	232.63	20	25	25
11	63.0	56.34	10	14	16	47	245.1	237.68	20	25	25
12	68.0	61.34	10	14	16	48	250.2	242.73	20	25	25
13	73.0	66.32	10	14	16	49	255.2	247.78	20	25	25
14	78.0	71.34	10	14	16	50	260.3	252.82	20	25	25
15	83.0	76.36	10	14	16	51	265.3	257.87	20	25	25
16	88.0	81.37	12	16	16	52	270.4	262.92	20	25	25
17	93.0	86.38	12	16	16	53	275.4	267.97	20	25	25
18	98.3	91.42	12	16	16	54	280.5	273.03	20	25	25
19	103.3	96.45	12	16	16	55	285.5	278.08	20	25	25
20	108.4	101.49	12	16	16	56	290.6	283.13	25	25	25
21	113.4	106.52	12	16	20	57	296.0	288.18	25	25	25
22	118.0	111.55	12	16	20	58	300.7	293.23	25	25	25
23	123.5	116.58	12	16	20	59	305.7	298.27	25	25	25
24	128.3	121.62	12	16	20	60	310.8	303.32	25	25	25
25	134.0	126.66	12	16	20	62	321.4	313.43	25	25	30
26	139.0	131.70	16	16	20	64	331.5	323.53	25	25	30
27	144.0	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	167.00	16	20	20	76	392.1	384.16	25	25	30
34	179.0	172.05	16	20	20	78	402.2	394.25	25	25	30
35	184.1	177.10	16	20	20	80	412.3	404.35	25	30	30
36	189.1	182.15	20	20	25	85	437.6	429.62	30	30	30
37	194.2	187.20	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	505.39	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	614.4	606.45	30	30	30
43	224.9	217.49	20	20	25	125	639.7	631.51	30	30	30



# P I G N O N I

Z	d <sub>e</sub>	d <sub>p</sub>	SEMPLICI			DOPPI			TRIPLI		
			d <sub>m</sub>	D <sub>1</sub>	A	d <sub>m</sub>	D <sub>1</sub>	A	d <sub>m</sub>	D <sub>1</sub>	A
8	57.6	49.78	31	12	30	31	12	45	31	16	65
9	62.0	55.70	37	12	30	37	12	45	37	16	65
10	69.0	61.64	42	12	30	42	12	45	42	16	65
11	75.0	67.61	46	14	35	47	16	50	47	20	70
12	81.5	73.61	52	14	35	53	16	50	53	20	70
13	87.5	79.59	58	14	35	59	16	50	59	20	70
14	93.6	85.61	64	14	35	65	16	50	65	20	70
15	99.8	91.63	70	14	35	71	16	50	71	20	70
16	105.5	97.65	75	16	35	77	20	50	77	20	70
17	111.5	103.67	80	16	35	83	20	50	83	20	70
18	118.0	109.71	80	16	35	89	20	50	89	20	70
19	124.2	115.75	80	16	35	95	20	50	95	20	70
20	129.7	121.78	80	16	35	100	20	50	100	20	70
21	136.0	127.82	90	20	40	100	20	50	100	20	70
22	141.8	133.86	90	20	40	100	20	50	100	20	70
23	149.0	139.9	90	20	40	110	20	50	110	20	70
24	153.9	145.94	90	20	40	110	20	50	110	20	70
25	160.0	152.00	90	20	40	120	20	50	120	20	70
26	165.9	158.04	95	20	40	120	20	50	120	20	70
27	172.3	164.09	95	20	40	120	20	50	120	20	70
28	178.0	170.13	95	20	40	120	20	50	120	20	70
29	184.1	176.19	95	20	40	120	20	50	120	20	70
30	190.5	182.25	95	20	40	120	20	50	120	20	70
31	196.3	188.31	100	20	40	130	20	50	130	25	70
32	203.3	194.35	100	20	40	130	20	50	130	25	70
33	209.3	200.40	100	20	40	130	20	50	130	25	70
34	214.6	206.46	100	20	40	130	20	50	130	25	70
35	221.0	212.52	100	20	40	130	20	50	130	25	70
36	226.8	218.58	100	20	40	130	25	50	130	25	70
37	232.9	224.64	100	20	40	130	25	50	130	25	70
38	239.0	230.69	100	20	40	130	25	50	130	25	70
39	245.1	236.75	100	20	40	130	25	50	130	25	70
40	251.3	242.81	100	20	40	130	25	50	130	25	70

**3/4" x 7/16"**  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE mm

RAGGIO DENTE r <sub>3</sub>	19
LARGHEZZA RAGGIO C	2
LARGHEZZA DENTE PIGNONE B <sub>1</sub>	11.1
LARGHEZZA DENTE PIGNONE b <sup>1</sup>	10.8
LARGHEZZA DENTE PIGNONE B <sub>2</sub>	30.3
LARGHEZZA DENTE PIGNONE B <sub>3</sub>	49.8

## CATENA mm

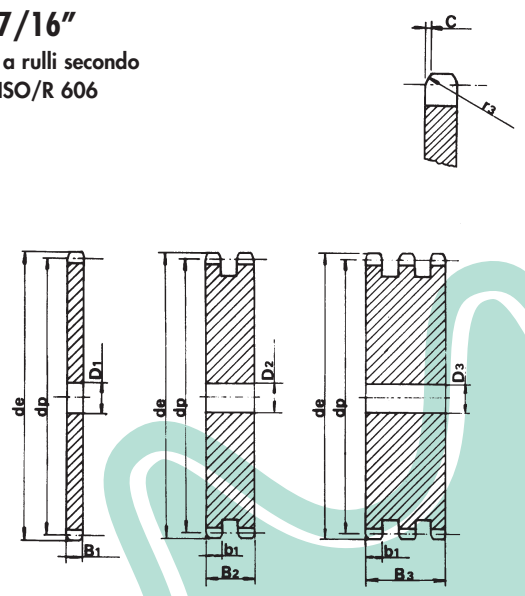
PASSO	19.05
LARGHEZZA INTERNA	11.68
RULLO - ø	12.07

MATERIALE: C 45 UNI 7845

# C O R O N E

Z	d <sub>e</sub>	d <sub>p</sub>	S D T			Z	d <sub>e</sub>	d <sub>p</sub>	S D T		
			D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>				D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>
8	57.6	49.78	12	12	16	44	276.5	267.04	25	25	25
9	62.0	55.70	12	12	16	45	282.5	273.10	25	25	25
10	69.0	61.64	12	12	16	46	287.9	279.16	25	25	25
11	75.0	67.61	14	16	20	47	294.0	285.21	25	25	25
12	81.5	73.61	14	16	20	48	300.1	291.27	25	25	25
13	87.5	79.59	14	16	20	49	306.2	297.33	25	25	25
14	93.6	85.61	14	16	20	50	312.3	303.39	25	25	25
15	99.8	91.63	14	16	20	51	318.4	309.45	25	25	25
16	105.5	97.65	14	20	20	52	324.5	315.50	25	25	25
17	111.5	103.67	14	20	20	53	330.5	321.56	25	25	25
18	118.0	109.71	14	20	20	54	336.6	327.64	25	25	25
19	124.2	115.75	14	20	20	55	342.7	333.70	25	25	25
20	129.7	121.78	14	20	20	56	348.7	339.75	25	25	30
21	136.0	127.82	16	20	20	57	355.4	345.81	25	25	30
22	141.8	133.86	16	20	20	58	361.5	351.87	25	25	30
23	149.0	139.90	16	20	20	59	367.5	357.93	25	25	30
24	153.9	145.94	16	20	20	60	373.0	363.99	25	25	30
25	160.0	152.00	16	20	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	178.0	170.13	16	20	20	66	409.3	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	424.60	30	30	30
31	196.3	188.31	20	20	25	72	447.0	436.74	30	30	30
32	203.3	194.36	20	20	25	75	463.9	454.91	30	30	30
33	209.3	200.40	20	20	25	76	469.9	460.99	30	30	30
34	214.6	206.46	20	20	25	78	482.1	473.10	30	30	30
35	221.0	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	239.0	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	767.0	758.05	30	30	30

**3/4" x 7/16"**  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA mm

RAGGIO DENTE r <sub>3</sub>	19
LARGHEZZA RAGGIO C	2
LARGHEZZA DENTE CORONA B <sub>1</sub>	11.1
LARGHEZZA DENTE CORONA b <sup>1</sup>	10.8
LARGHEZZA DENTE CORONA B <sub>2</sub>	30.3
LARGHEZZA DENTE CORONA B <sub>3</sub>	49.8

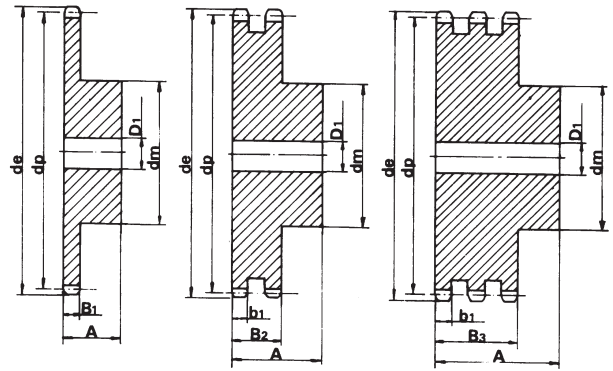
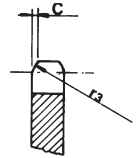
## CATENA mm

PASSO	19.05
LARGHEZZA INTERNA	11.68
RULLO - ø	12.07



# P I G N O N I

1" x 17.02 mm  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE mm

RAGGIO DENTE $r_3$	26
LARGHEZZA RAGGIO C	2.5
LARGHEZZA DENTE PIGNONE $B_1$	16.2
LARGHEZZA DENTE PIGNONE $b_1$	15.8
LARGHEZZA DENTE PIGNONE $B_2$	47.7
LARGHEZZA DENTE PIGNONE $B_3$	79.6

## CATENA mm

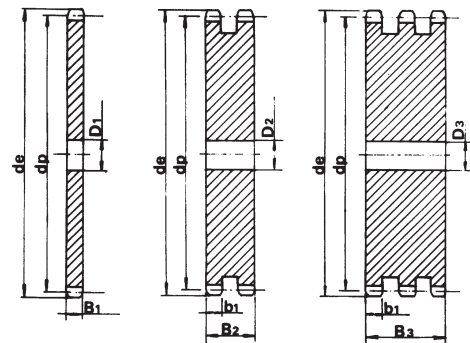
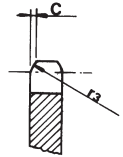
PASSO	25.4
LARGHEZZA INTERNA	17.02
RULLO - $\emptyset$	15.88

MATERIALE: C 45 UNI 7845 \*MATERIALE: FE - CON MOZZO SALDATO

Z	$d_e$	$d_p$	SEMPLICI			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	77.0	66.37	42	16	35	42	16	65	42	20	95
9	85.0	74.27	50	16	35	50	16	65	50	20	95
10	93.0	82.19	55	16	35	56	16	65	56	20	95
11	99.5	90.14	61	16	40	64	20	70	64	25	100
12	109.0	98.14	69	16	40	72	20	70	72	25	100
13	117.0	106.12	78	16	40	80	20	70	80	25	100
14	125.0	114.15	84	16	40	88	20	70	88	25	100
15	133.0	122.17	92	16	40	96	20	70	96	25	100
16	141.0	130.20	100	20	45	104	20	70	104	30	100
17	149.0	138.22	100	20	45	112	20	70	112	30	100
18	157.0	146.28	100	20	45	120	20	70	120	30	100
19	165.2	154.33	100	20	45	128	20	70	128	30	100
20	173.2	162.38	100	20	45	130	20	70	130	30	100
21	181.2	170.43	110	20	50	130	25	70	*130	30	100
22	189.3	178.48	110	20	50	*130	25	70	*130	30	100
23	197.5	186.53	110	20	50	*130	25	70	*130	30	100
24	205.5	194.59	110	20	50	*130	25	70	*130	30	100
25	213.5	202.66	110	20	50	*130	25	70	*130	30	100
26	221.6	210.72	120	20	50	*130	25	70	*130	30	100
27	229.6	218.79	120	20	50	*130	25	70	*130	30	100
28	237.7	226.85	120	20	50	*130	25	70	*130	30	100
29	245.8	234.92	120	20	50	*130	25	70	*130	30	100
30	254.0	243.00	120	20	50	*130	25	70	*130	30	100
31	262.0	251.08	*120	25	50	*140	25	70	*140	30	100
32	270.0	259.13	*120	25	50	*140	25	70	*140	30	100
33	278.5	267.21	*120	25	50	*140	25	70	*140	30	100
34	287.0	275.28	*120	25	50	*140	25	70	*140	30	100
35	296.2	283.36	*120	25	50	*140	25	70	*140	30	100
36	304.6	291.44	*120	25	50	*140	25	70	*140	30	100
37	312.6	299.51	*120	25	50	*140	25	70	*140	30	100
38	320.7	307.59	*120	25	50	*140	25	70	*140	30	100
39	328.8	315.67	*120	25	50	*140	25	70	*140	30	100
40	336.9	323.75	*120	25	50	*140	25	70	*140	30	100

# C O R O N E

1" x 17.02 mm  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA mm

RAGGIO DENTE $r_3$	26
LARGHEZZA RAGGIO C	2.5
LARGHEZZA DENTE CORONA $B_1$	16.2
LARGHEZZA DENTE CORONA $b_1$	15.8
LARGHEZZA DENTE CORONA $B_2$	47.7
LARGHEZZA DENTE CORONA $B_3$	79.6

## CATENA mm

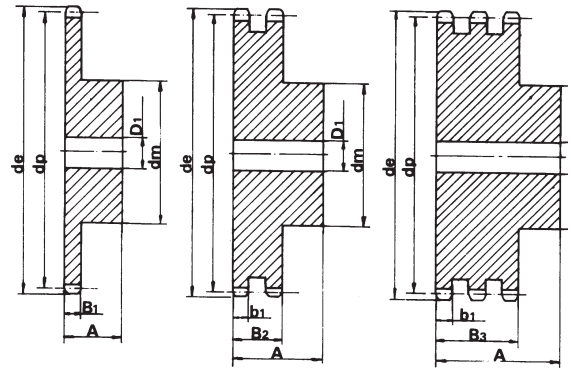
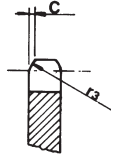
PASSO	25.4
LARGHEZZA INTERNA	17.02
RULLO - $\emptyset$	15.88

Z	$d_e$	$d_p$	S D T			Z	$d_e$	$d_p$	S D T		
			$D_1$	$D_2$	$D_3$				$D_1$	$D_2$	$D_3$
8	77.0	66.37	14	16	20	44	369.1	356.06	25	25	30
9	85.0	74.27	14	16	20	45	377.1	364.13	25	25	30
10	93.0	82.19	15	16	20	46	385.2	372.21	25	30	30
11	99.5	90.14	15	20	25	47	393.2	380.29	25		
12	109.0	98.14	15	20	25	48	401.3	388.36	25	30	30
13	117.0	106.12	15	20	25	49	409.3	396.44	25		
14	125.0	114.15	15	20	25	50	417.4	404.52	25	30	30
15	133.0	122.17	15	20	25	51	425.5	412.60	30	30	40
16	141.0	130.20	19	20	30	52	433.6	420.67	30	30	40
17	149.0	138.22	19	20	30	53	441.7	428.75	30		
18	157.0	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	173.0	162.38	19	20	30	56	466.0	453.01	30	30	
21	181.2	170.43	20	25	30	57	474.0	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	501.50	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	533.80	30		
29	245.8	234.92	20	25	30	68	562.9	549.98	30	30	40
30	254.0	243.00	20	25	30	70	579.2	566.14	30	30	40
31	262.0	251.08	25	25	30	72	595.4	582.32	30	30	40
32	270.0	259.13	25	25	30	75	619.7	606.55	30	30	40
33	278.5	267.21	25	25	30	76	627.0	614.65	30	30	40
34	287.0	275.28	25	25	30	78	643.3	630.80	30		
35	296.2	283.36	25	25	30	80	660.0	646.96	30	30	40
36	304.6	291.44	25	25	30	85	699.9	687.40	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	323.75	25	25	30	110	902.0	889.48	30	30	40
41	345.0	331.82	25			114	934.3	921.81	30	40	40
42	353.0	339.90	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

# P I G N O N I

1" 1/4 x 3/4"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	32
LARGHEZZA RAGGIO C	3.5
LARGHEZZA DENTE PIGNONE $B_1$	18.5
LARGHEZZA DENTE PIGNONE $b^1$	18.2
LARGHEZZA DENTE PIGNONE $B_2$	54.6
LARGHEZZA DENTE PIGNONE $B_3$	91

## CATENA

mm

PASSO	31.75
LARGHEZZA INTERNA	19.56
RULLO - $\emptyset$	19.05

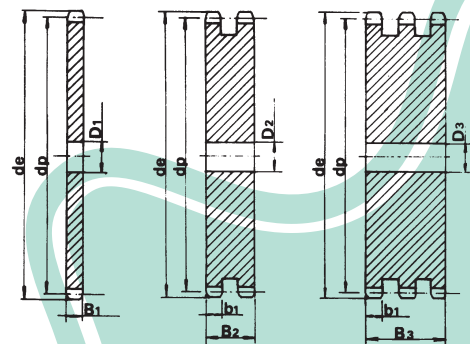
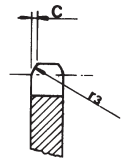
MATERIALE: C 45 UNI 7845 \*MATERIALE: FE - CON MOZZO SALDATO

Z	$d_e$	$d_p$	SEMPLICI			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	98.1	82.96	53	20	40	53	20	75	53	20	110
9	108.0	92.84	63	20	40	63	20	75	63	20	110
10	117.9	102.74	70	20	40	70	20	75	70	20	110
11	127.8	112.68	77	20	45	80	20	80	80	20	115
12	137.8	122.68	88	20	45	90	20	80	90	20	115
13	147.8	132.65	98	20	45	100	20	80	100	20	115
14	157.8	142.68	108	20	45	110	20	80	110	20	115
15	167.9	152.72	118	20	45	120	20	80	120	20	115
16	177.9	162.75	120	25	50	120	25	80	120	25	115
17	187.9	172.78	120	25	50	120	25	80	120	25	115
18	198.0	182.85	120	25	50	*120	25	80	*120	25	115
19	208.1	192.91	120	25	50	*120	25	80	*120	25	115
20	218.1	202.98	120	25	50	*120	25	80	*120	25	115
21	228.2	213.04	140	25	55	*140	25	80	*140	25	115
22	238.3	223.11	140	25	55	*140	25	80	*140	25	115
23	248.3	233.17	140	25	55	*140	25	80	*140	25	115
24	258.4	243.23	140	25	55	*140	25	80	*140	25	115
25	268.5	253.33	140	25	55	*140	25	80	*140	25	115
26	278.6	263.40	*150	25	55	*150	25	80	*150	25	115
27	288.6	273.49	*150	25	55	*150	25	80	*150	25	115
28	298.7	283.56	*150	25	55	*150	25	80	*150	25	115
29	308.8	293.65	*150	25	55	*150	25	80	*150	25	115
30	318.9	303.75	*150	25	55	*150	25	80	*150	25	115
31	329.0	313.85	*160	25	55	*150	25	80	*150	30	115
32	339.1	323.91	*160	25	55	*150	25	80	*150	30	115
33	349.2	334.01	*160	25	55	*150	25	80	*150	30	115
34	359.3	344.10	*160	25	55	*150	25	80	*150	30	115
35	369.4	354.20	*160	25	55	*150	25	80	*150	30	115
36	379.5	364.30	*160	25	55	*150	30	80	*150	30	115
37	389.5	374.39	*160	25	55	*150	30	80	*150	30	115
38	399.6	384.49	*160	25	55	*150	30	80	*150	30	115
39	409.7	394.59	*160	25	55	*150	30	80	*150	30	115
40	419.8	404.69	*160	25	55	*150	30	80	*150	30	115

# C O R O N E

1" 1/4 x 3/4"

per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA

mm

RAGGIO DENTE $r_3$	32
LARGHEZZA RAGGIO C	3.5
LARGHEZZA DENTE CORONA $B_1$	18.5
LARGHEZZA DENTE CORONA $b^1$	18.2
LARGHEZZA DENTE PIGNONE $B_2$	54.6
LARGHEZZA DENTE CORONA $B_3$	91

## CATENA

mm

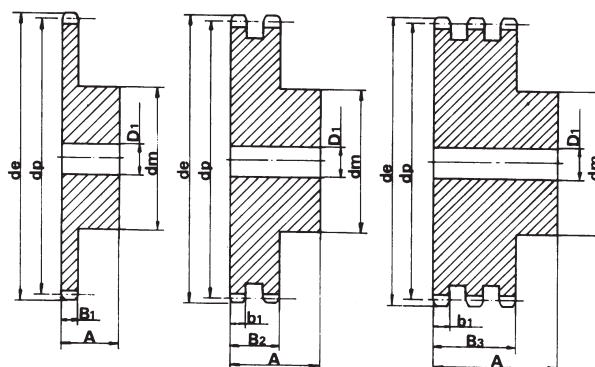
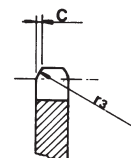
PASSO	31.75
LARGHEZZA INTERNA	19.56
RULLO - $\emptyset$	19.05

Z	$d_e$	$d_p$	S D T			Z	$d_e$	$d_p$	S D T		
			$D_1$	$D_2$	$D_3$				$D_1$	$D_2$	$D_3$
8	98.1	82.96	16	20	20	43	450.1	434.97	30		
9	108.0	92.84	16	20	20	44	460.2	445.07	30		
10	117.9	102.74	16	20	20	45	470.3	455.17	30	30	40
11	127.8	112.68	16	20	20	46	480.4	465.26	30	30	40
12	137.8	122.68	20	20	20	47	490.5	475.36	30		
13	147.8	132.65	20	20	20	48	500.6	485.46	30	30	40
14	157.8	142.68	20	20	20	49	510.7	495.55	30		
15	167.9	152.72	20	20	20	50	520.8	505.65	30	30	40
16	177.9	162.75	25	25	25	51	530.9	515.75	30		
17	187.9	172.78	25	25	25	52	541.0	525.84	30	30	40
18	198.0	182.85	25	25	25	53	551.1	535.94	30		
19	208.1	192.91	25	25	25	54	561.2	546.07	30		
20	218.1	202.98	25	25	25	55	571.3	556.16	30	30	40
21	228.2	213.04	25	25	25	56	581.4	566.26	30		
22	238.3	223.11	25	25	25	57	591.5	576.36	30	30	40
23	248.3	233.17	25	25	25	58	601.6	586.45	30		
24	258.4	243.23	25	25	25	59	611.7	596.55	30		
25	268.5	253.33	25	25	-25	60	621.8	606.65	30	30	40
26	278.6	263.40	25	25	25	62	642.0	626.87	30		
27	288.6	273.49	25	25	25	64	662.2	647.06	30		
28	298.7	283.56	25	25	25	65	672.3	657.16	30	30	40
29	308.8	293.65	25	25	25	66	682.4	667.26	30		
30	318.9	303.75	25	25	25	68	702.6	687.48	30		
31	329.0	313.85	25	25	30	70	722.8	707.67	30	30	40
32	339.1	323.91	25	25	30	72	743.1	727.90	30		
33	349.2	334.01	25	25	30	75	773.3	758.19	30		
34	359.3	344.10	25	25	30	76	783.5	768.32	30	30	40
35	369.4	354.20	25	25	30	80	823.9	808.72	30	30	40
36	379.5	364.30	25	30	30	85	874.4	859.25	30		
37	389.5	374.39	25	30	30	90	924.9	909.76	30		
38	399.6	384.49	25	30	30	95	975.4	960.28	30	30	40
39	409.7	394.59	25	30	30	100	1026.0	1010.79	30		
40	419.8	404.68	25	30	30	114	1167.4	1152.26	30	40	40
41	429.9	414.78	30								
42	440.0	424.88	30	30	40						

# P I G N O N I

Z	d <sub>e</sub>	d <sub>p</sub>	SEMPLICI			DOPPI			TRIPLI		
			d <sub>m</sub>	D <sub>1</sub>	A	d <sub>m</sub>	D <sub>1</sub>	A	d <sub>m</sub>	D <sub>1</sub>	A
8	115.0	99.55	58	20	45	58	25	95	58	25	140
9	126.4	111.40	70	20	45	70	25	95	70	25	140
10	138.0	123.29	80	20	45	80	25	95	80	25	140
11	150.0	135.21	90	25	50	90	25	100	90	25	150
12	162.0	147.22	102	25	50	102	25	100	102	25	150
13	174.2	159.18	114	25	50	114	25	100	114	25	150
14	186.2	171.22	128	25	50	128	25	100	128	25	150
15	198.2	183.26	140	25	50	140	25	100	140	25	150
16	210.3	195.30	*140	25	55	*140	25	100	*140	25	150
17	222.3	207.34	*140	25	55	*150	25	100	*150	25	150
18	234.3	219.42	*140	25	55	*160	25	100	*160	25	150
19	246.5	231.49	*140	25	55	*160	25	100	*160	25	150
20	258.6	243.57	*140	25	55	*160	25	100	*160	25	150
21	270.6	255.65	*150	25	60	*160	25	100	*160	30	150
22	282.7	267.73	*150	25	60	*160	25	100	*160	30	150
23	294.8	279.80	*150	25	60	*160	25	100	*160	30	150
24	306.8	291.88	*150	25	60	*160	25	100	*160	30	150
25	319.0	304.00	*150	25	60	*160	25	100	*160	30	150
26	331.0	316.08	*160	30	60	*160	30	100	*160	30	150
27	343.2	328.19	*160	30	60	*160	30	100	*160	30	150
28	355.2	340.27	*160	30	60	*160	30	100	*160	30	150
29	367.3	352.38	*160	30	60	*160	30	100	*160	30	150
30	379.5	364.50	*160	30	60	*160	30	100	*160	40	150
31	391.6	376.62	*160	30	60	*170	30	100			
32	403.7	388.69	*160	30	60	*170	30	100	*170	40	150
33	415.8	400.81	*160	30	60	*170	30	100	*170	40	150
34	427.8	412.93	*160	30	60	*170	30	100	*170	40	150
35	440.0	425.04	*160	30	60	*170	30	100	*170	40	150
36	452.0	437.16	*160	30	60	*170	30	100	*170	40	150
37	464.2	449.27	*160	30	60	*170	30	100			
38	476.2	461.39	*160	30	60	*170	30	100	*170	40	150
39	488.5	473.50	*160	30	60	*170	30	100			
40	500.6	485.62	*160	30	60	*170	30	100	*170	40	150

1" 1/2 x 1"  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE mm

RAGGIO DENTE r <sub>3</sub>	38
LARGHEZZA RAGGIO C	4
LARGHEZZA DENTE PIGNONE B <sub>1</sub>	24.1
LARGHEZZA DENTE PIGNONE b <sup>1</sup>	23.6
LARGHEZZA DENTE PIGNONE B <sub>2</sub>	72
LARGHEZZA DENTE PIGNONE B <sub>3</sub>	120.3

## CATENA mm

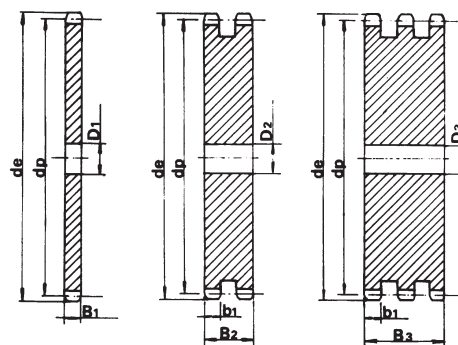
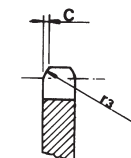
PASSO	38.1
LARGHEZZA INTERNA	25.4
RULLO - ø	25.4

MATERIALE: C 45 UNI 7845 \*MATERIALE: FE - CON MOZZO SALDATO

# C O R O N E

Z	d <sub>e</sub>	d <sub>p</sub>	S D T			Z	d <sub>e</sub>	d <sub>p</sub>	S D T		
			D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>				D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>
8	115.0	99.55	20	25	25	43	536.8	521.97	30		
9	126.4	111.40	20	25	25	44	549.0	534.08	30		
10	138.0	123.29	20	25	25	45	561.2	546.20	30	40	40
11	150.0	135.21	20	25	25	46	573.3	558.32	30	40	40
12	162.0	147.22	20	25	25	47	585.4	570.43	30		
13	174.2	159.18	20	25	25	48	597.4	582.55	30	40	40
14	186.2	171.22	20	25	25	49	609.5	594.66	30		
15	198.2	183.26	20	25	25	50	621.7	606.78	30	40	40
16	210.3	195.30	25	25	25	51	633.8	618.89	30		
17	222.3	207.34	25	25	25	52	646.0	631.01	30		
18	234.3	219.42	25	25	25	53	658.0	643.13	30		
19	246.5	231.49	25	25	25	54	670.2	655.28	30		
20	258.6	243.57	25	25	25	55	682.3	667.40	30	40	40
21	270.6	255.65	25	25	30	56	694.4	679.51	30		
22	282.7	267.73	25	25	30	57	706.5	691.63	30	40	40
23	294.8	279.80	25	25	30	58	718.6	703.74	30		
24	306.8	291.88	25	25	30	59	730.7	715.86	30		
25	319.0	304.00	25	25	30	60	742.8	727.97	30	40	40
26	331.0	316.08	30	30	30	62	767.2	752.24	40		
27	343.2	328.19	30	30	30	64	791.3	776.48	40		
28	355.2	340.27	30	30	30	65	803.4	788.59	40	40	40
29	367.3	352.38	30	30	30	66	815.6	800.71	40		
30	379.5	364.50	30	30	40	68	839.8	824.98	40		
31	391.6	376.62	30	30		70	864.2	849.21	40		
32	403.7	388.69	30	30	40	72	888.4	873.48	40		
33	415.8	400.81	30	30	40	75	924.8	909.83	40		
34	427.8	412.93	30	30	40	76	936.9	921.98	40	40	40
35	440.0	425.04	30	30	40	80	985.4	970.44	40		
36	452.0	437.16	30	30	40	85	1046.0	1031.10	40		
37	464.2	449.27	30	30		95	1167.3	1152.33	40		
38	476.2	461.39	30	30	40						
39	488.5	473.50	30	30							
40	500.6	485.62	30	30	40						
41	512.6	497.74	30								
42	524.7	509.85	30	40	40						

1" 1/2 x 1"  
per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA mm

RAGGIO DENTE r <sub>3</sub>	38
LARGHEZZA RAGGIO C	4
LARGHEZZA DENTE CORONA B <sub>1</sub>	24.1
LARGHEZZA DENTE CORONA b <sup>1</sup>	23.6
LARGHEZZA DENTE CORONA B <sub>2</sub>	72
LARGHEZZA DENTE CORONA B <sub>3</sub>	120.3

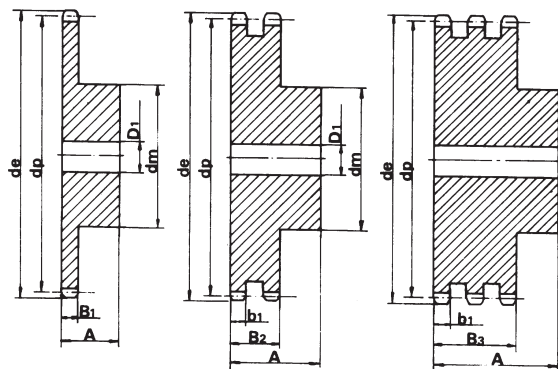
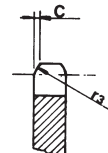
## CATENA mm

PASSO	38.1
LARGHEZZA INTERNA	25.4
RULLO - ø	25.4

# P I G N O N I

1" 3/4 x 1" 1/4

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

	mm
RAGGIO DENTE $r_3$	44
LARGHEZZA RAGGIO C	5
LARGHEZZA DENTE PIGNONE $B_1$	29.4
LARGHEZZA DENTE PIGNONE $b^1$	28.8
LARGHEZZA DENTE PIGNONE $B_2$	88.4
LARGHEZZA DENTE PIGNONE $B_3$	148

## CATENA

	mm
PASSO	44.45
LARGHEZZA INTERNA	30.99
RULLO - $\varnothing$	27.94

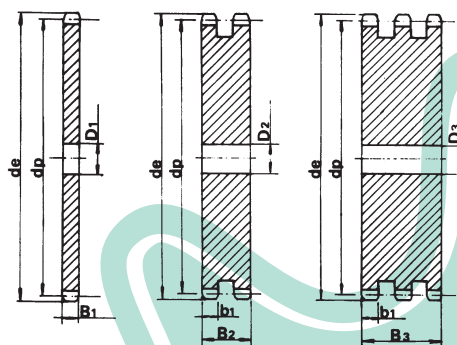
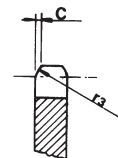
MATERIALE: C 45 UNI 7845 \*MATERIALE: FE - CON MOZZO SALDATO

Z	$d_e$	$d_p$	SEMPlici			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	132.0	116.15	74	25	70	74	25	120	74	30	180
9	148.4	129.96	88	25	70	88	25	120	88	30	180
10	162.3	143.85	100	25	70	100	25	120	100	30	180
11	176.3	157.77	112	25	70	112	25	120	112	30	180
12	189.5	171.74	125	25	70	125	25	120	125	30	180
13	204.2	185.75	*130	25	70	*130	25	120	*130	30	180
14	218.2	199.76	*130	25	70	*130	25	120	*130	30	180
15	232.3	213.79	*145	25	70	*145	25	120	*145	30	180
16	246.3	227.84	*160	30	75	*160	30	120	*160	30	180
17	260.0	241.91	*160	30	75	*160	30	120	*160	30	180
18	274.0	255.98	*160	30	75	*160	30	120	*160	30	180
19	289.0	270.06	*160	30	75	*180	30	120	*180	30	180
20	303.0	284.15	*160	30	75	*180	30	120	*180	30	180
21	317.0	298.24	*170	30	75	*180	30	120	*180	30	180
22	331.0	312.34	*170	30	75	*180	30	120	*180	30	180
23	345.0	326.44	*170	30	75	*180	30	120	*180	30	180
24	359.0	340.55	*170	30	75	*180	30	120	*180	30	180
25	373.0	354.66	*170	30	75	*180	30	120	*180	40	180
26	387.0	368.77	*170	30	75	*180	30	120	*180	40	180
27	401.4	382.88	*170	30	75	*180	30	120	*180	40	180
28	416.0	397.00	*170	30	75	*180	30	120	*180	40	180
29	430.0	411.12	*170	30	75	*180	30	120	*180	40	180
30	444.0	425.24	*170	30	75	*180	30	120	*180	40	180
31	458.0	439.37	*180	30	75						
32	472.0	453.49	*180	30	75						
33	486.0	467.62	*180	30	75						
34	500.0	481.75	*180	30	75						
35	514.0	495.88	*180	30	75	*200	30	120	*200	40	180
36	529.0	510.01	*180	30	75						
37	543.0	524.14	*180	30	75						
38	557.0	538.27	*180	30	75	*200	30	120	*200	40	180
39	571.0	552.40	*180	30	75						
40	585.0	566.54	*180	30	75	*200	30	120	*200	40	180

# C O R O N E

1" 3/4 x 1" 1/4

per catene a rullo secondo  
DIN 8187 ISO/R 606



## CORONA

	mm
RAGGIO DENTE $r_3$	44
LARGHEZZA RAGGIO C	5
LARGHEZZA DENTE CORONA $B_1$	29.4
LARGHEZZA DENTE CORONA $b^1$	28.8
LARGHEZZA DENTE CORONA $B_2$	88.4
LARGHEZZA DENTE CORONA $B_3$	148

## CATENA

	mm
PASSO	44.45
LARGHEZZA INTERNA	30.99
RULLO - $\varnothing$	27.94

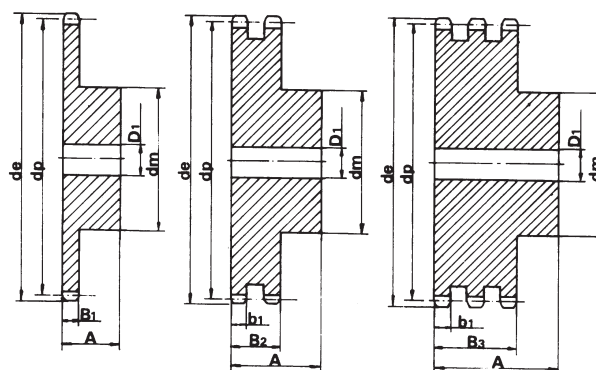
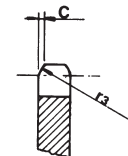
Z	$d_e$	$d_p$	S			D			T		
			$D_1$	$D_2$	$D_3$	$D_1$	$D_2$	$D_3$	$D_1$	$D_2$	$D_3$
8	132.0	116.15	25	25	25	57	825.0	806.90	40	40	40
9	148.4	129.96	25	25	25	60	869.0	849.32	40	40	40
10	162.3	143.85	25	25	25	76	1095.0	1075.62	40	40	40
11	176.3	157.77	25	25	30						
12	189.5	171.74	25	25	30						
13	204.2	185.75	25	25	30						
14	218.2	199.76	25	25	30						
15	232.3	213.79	25	25	30						
16	246.3	227.84	30	30	30						
17	260.0	241.91	30	30	30						
18	274.0	255.98	30	30	30						
19	289.0	270.06	30	30	30						
20	303.0	284.15	30	30	30						
21	317.0	298.24	30	30	30						
22	331.0	312.34	30	30	30						
23	345.0	326.44	30	30	30						
24	359.0	340.55	30	30	30						
25	373.0	354.66	30	30	40						
26	387.0	368.77	30	30	40						
27	401.4	382.88	30	30	40						
28	416.0	397.00	30	30	40						
29	430.0	411.12	30	30	40						
30	444.0	425.24	30	30	40						
31	458.0	439.37	30								
32	472.0	453.49	30								
33	486.0	467.62	30								
34	500.0	481.75	30								
35	514.0	495.88	30	30	40						
36	529.0	510.01	30								
37	543.0	524.14	30								
38	557.0	538.27	30	30	40						
39	571.0	552.40	30								
40	585.0	566.54	30	30	40						
45	656.0	637.22	30	30	40						
50	726.0	707.91	30	30	40						



# P I G N O N I

2" x 1" 1/4

per catene a rulli secondo  
DIN 8187 ISO/R 606



## PIGNONE

mm

RAGGIO DENTE $r_3$	51
LARGHEZZA RAGGIO C	5
LARGHEZZA DENTE PIGNONE $B_1$	29.4
LARGHEZZA DENTE PIGNONE $b_1$	28.8
LARGHEZZA DENTE PIGNONE $B_2$	87.4
LARGHEZZA DENTE PIGNONE $B_3$	146

## CATENA

mm

PASSO	50.8
LARGHEZZA INTERNA	30.99
RULLO - $\emptyset$	29.21

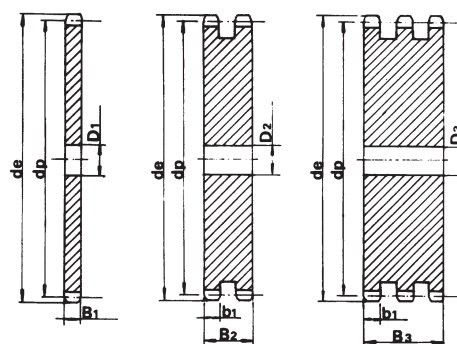
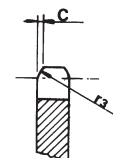
MATERIALE: C 45 UNI 7845 \*MATERIALE: FE - CON MOZZO SALDATO

Z	$d_e$	$d_p$	SEMPlici			DOPPI			TRIPLI		
			$d_m$	$D_1$	A	$d_m$	$D_1$	A	$d_m$	$D_1$	A
8	153.2	132.69	82	25	80	82	30	120	82	30	180
9	169.0	148.54	88	25	80	88	30	120	88	30	180
10	185.0	164.44	104	25	80	104	30	120	104	30	180
11	200.8	180.34	120	30	80	120	30	120	120	30	180
12	216.8	196.29	*133	30	80	*133	30	120	*133	30	180
13	232.8	212.29	*145	30	80	*145	30	120	*145	30	180
14	248.8	228.29	*160	30	80	*160	30	120	*160	30	180
15	264.8	244.30	*160	30	80	*160	30	120	*160	30	180
16	280.9	260.40	*160	30	90	*160	30	120	*160	30	180
17	296.9	276.40	*170	30	90	*180	30	120	*180	30	180
18	313.0	292.55	*170	30	90	*180	30	120	*180	30	180
19	329.1	308.66	*170	30	90	*200	30	120	*200	30	180
20	345.2	324.71	*180	30	90	*200	30	120	*200	30	180
21	361.3	340.82	*180	30	90	*200	30	120	*200	40	180
22	377.5	356.98	*180	30	90	*200	30	120	*200	40	180
23	393.6	373.08	*180	30	90	*200	30	120	*200	40	180
24	409.7	389.18	*180	30	90	*200	30	120	*200	40	180
25	425.8	405.33	*180	30	90	*200	30	120	*200	40	180
26	441.9	421.44	*180	30	90	*200	30	120	*200	40	180
27	458.1	437.59	*180	30	90	*200	30	120	*200	40	180
28	474.2	453.69	*180	30	90	*200	30	120	*200	40	180
29	490.4	469.90	*180	30	90						
30	506.5	486.00	*180	30	90	*200	30	120	*200	40	180
32	538.8	518.28	*180	30	90						
35	589.5	566.72	*180	30	90						
38	635.5	615.14	*180	30	90						
40	670.3	647.49	*180	30	90						

# C O R O N E

2" x 1" 1/4

per catene a rulli secondo  
DIN 8187 ISO/R 606



## CORONA

mm

RAGGIO DENTE $r_3$	51
LARGHEZZA RAGGIO C	5
LARGHEZZA DENTE CORONA $B_1$	29.4
LARGHEZZA DENTE CORONA $b_1$	28.8
LARGHEZZA DENTE CORONA $B_2$	87.4
LARGHEZZA DENTE CORONA $B_3$	146

## CATENA

mm

PASSO	50.8
LARGHEZZA INTERNA	30.99
RULLO - $\emptyset$	29.21

Z	$d_e$	$d_p$	S D T			Z	$d_e$	$d_p$	S D T		
			$D_1$	$D_2$	$D_3$				$D_1$	$D_2$	$D_3$
8	153.2	132.69	25	25	25	76	1252.0	1229.28	40	40	40
9	169.0	148.54	25	25	25						
10	185.0	164.44	25	25	25						
11	200.8	180.34	30	30	30						
12	216.8	196.29	30	30	30						
13	232.8	212.29	30	30	30						
14	248.8	228.29	30	30	30						
15	264.8	244.30	30	30	30						
16	280.9	260.40	30	30	30						
17	296.9	276.40	30	30	30						
18	313.0	292.55	30	30	30						
19	329.1	308.66	30	30	30						
20	345.2	324.71	30	30	30						
21	361.3	340.82	30	30	40						
22	377.5	356.98	30	30	40						
23	393.6	373.08	30	30	40						
24	409.7	389.18	30	30	40						
25	425.8	405.33	30	30	40						
26	441.9	421.44	30	30	40						
27	458.1	437.59	30	30	40						
28	474.2	453.69	30	30	40						
29	490.4	469.90	30								
30	506.5	486.00	30	30	40						
32	538.8	518.26	30								
35	589.5	566.72	30	30	40						
38	635.5	615.14	30	30	40						
40	670.3	647.49	40	40	40						
45	751.0	728.26	40	40	40						
50	831.8	809.04	40	40	40						
57	945.0	922.17	40	40	40						
60	993.4	970.63	40	40	40						