

# POWERGRIP® 5MGT & POLY CHAIN® 5MGT SPROCKETS



Use with 5mm PowerGrip® GT or Poly Chain® GT belts. 2MGT and 3MGT pulleys available on request, please contact Gates customer service.

## Identification

Engraved or cast three part numbers on side of sprocket indicating pitch code, number of teeth and width.

## Advantages

- Precise sprocket design produces positive, press fit to shaft.
- Smaller, narrower sprockets save shaft space, keep the load closer to bearing and extend life of reducer.
- Sprockets are precision manufactured and static balanced.

## NOTE:

On a sprocket, pitch is the distance between groove centres and is measured on the pitch circle of the sprocket. The pitch circle of the sprocket coincides with the pitch line of the belt mating with it. The pitch diameter of the sprocket is always greater than its outside diameter.

PowerGrip & Poly Chain® 5MGT Sprocket ordering code is composed as follows:

P60-5MGT-15	
<b>P</b>	- PowerGrip Sprocket
<b>60</b>	- 60 Teeth
<b>5MGT</b>	- Pitch 5mm
<b>15</b>	- To suit belt width (mm)

## For Belts 9mm and 15mm Wide

Pulley Designation	No. of Teeth	Diameters			Bush No.	Weight (kg)
		Pitch (mm)	Outside (mm)	Flange (mm)		
P18-5MGT-15	18	28.65	27.51	35.18	PB	0.12
P19-5MGT-15	19	30.24	29.11	36.07	PB	0.15
P20-5MGT-15	20	31.83	30.68	38.35	PB	0.15
P21-5MGT-15	21	33.42	32.28	38.86	PB	0.17
P22-5MGT-15	22	35.01	33.88	38.86	PB	0.17
P23-5MGT-15	23	36.61	35.46	42.16	PB	0.22
P24-5MGT-15	24	38.20	37.06	45.21	PB	0.24
P25-5MGT-15	25	39.79	38.63	45.21	PB	0.26
P26-5MGT-15	26	41.38	40.23	48.26	PB	0.27
P28-5MGT-15	28	44.56	43.41	51.31	PB	0.31
P30-5MGT-15	30	47.75	46.61	54.1	PB	0.36
P32-5MGT-15	32	50.93	49.78	54.1	PB	0.42
P34-5MGT-15	34	54.11	52.96	60.33	PB	0.48
P36-5MGT-15	36	57.30	56.16	60.45	1108	0.51
P36-5MGT-15	36	57.30	56.16	60.45	PB	0.20
P38-5MGT-15	38	60.48	59.33	66.29	1108	0.71
P38-5MGT-15	38	60.48	59.33	66.29	PB	0.25
P40-5MGT-15	40	63.66	62.51	69.34	1108	0.75
P40-5MGT-15	40	63.66	62.51	69.34	PB	0.30
P44-5MGT-15	44	70.03	68.88	78.49	1108	0.42
P45-5MGT-15	45	71.62	70.49	78.49	PB	0.95
P48-5MGT-15	48	76.39	75.26	84.58	1210	0.47
P50-5MGT-15	50	79.58	78.44	84.58	PB	1.18
P52-5MGT-15	52	82.76	81.61	90.68	1210	0.60
P56-5MGT-15	56	89.13	87.99	96.77	1610	0.62
P60-5MGT-15	60	95.49	94.36	102.62	1610	0.91
P64-5MGT-15	64	101.86	100.71	105.16	1610	1.07
P68-5MGT-15	68	108.23	107.09	114.81	1610	1.23
P72-5MGT-15	72	114.59	113.44	118.62	1610	1.45
P80-5MGT-15	80	127.32	126.19	-	1610	1.58
P90-5MGT-15	90	143.24	142.09	-	1610	2.10
P112-5MGT-15	112	178.25	177.11	-	2012	3.78

NOTE: PB = Pilot Bore.

## POWERGRIP® 5MGT & POLY CHAIN® 5MGT SPROCKETS

### For Belts 25mm Wide

Pulley Designation	No. of Teeth	Diameters			Bush No.	Weight (kg)
		Pitch (mm)	Outside (mm)	Flange (mm)		
P18-5MGT-25	18	28.65	27.51	35.18	PB	0.17
P19-5MGT-25	19	30.24	29.11	36.07	PB	0.20
P20-5MGT-25	20	31.83	30.68	38.35	PB	0.22
P21-5MGT-25	21	33.42	32.28	38.86	PB	0.24
P22-5MGT-25	22	35.01	33.88	38.86	PB	0.26
P23-5MGT-25	23	36.61	35.46	42.16	PB	0.30
P24-5MGT-25	24	38.20	37.06	45.21	PB	0.34
P25-5MGT-25	25	39.79	38.63	45.21	PB	0.36
P26-5MGT-25	26	41.38	40.23	48.26	PB	0.36
P28-5MGT-25	28	44.56	43.41	51.31	PB	0.45
P30-5MGT-25	30	47.75	46.61	54.1	PB	0.50
P32-5MGT-25	32	50.93	49.78	54.1	PB	0.55
P34-5MGT-25	34	54.11	52.96	60.33	PB	0.61
P36-5MGT-25	36	57.30	56.16	60.45	1108	0.70
P36-5MGT-25	36	57.30	56.16	60.45	PB	0.27
P38-5MGT-25	38	60.48	59.33	66.29	1108	0.86
P38-5MGT-25	38	60.48	59.33	66.29	PB	0.33
P40-5MGT-25	40	63.66	62.51	69.34	1108	0.98
P40-5MGT-25	40	63.66	62.51	69.34	PB	0.42
P44-5MGT-25	44	70.03	68.88	78.49	1108	0.52
P45-5MGT-25	45	71.62	70.49	78.49	PB	1.23
P48-5MGT-25	48	76.39	75.26	84.58	1210	0.59
P50-5MGT-25	50	79.58	78.44	84.58	PB	1.55
P52-5MGT-25	52	82.76	81.61	90.68	1210	0.77
P56-5MGT-25	56	89.13	87.99	96.77	1610	0.80
P60-5MGT-25	60	95.49	94.36	102.62	1610	0.98
P64-5MGT-25	64	101.86	100.71	105.16	1610	1.15
P68-5MGT-25	68	108.23	107.09	114.81	2012	1.30
P72-5MGT-25	72	114.59	113.44	118.62	2012	1.49
P80-5MGT-25	80	127.32	126.19	-	2012	2.01
P90-5MGT-25	90	143.24	142.09	-	2012	2.80
P112-5MGT-25	112	178.25	177.11	-	2012	4.82

**NOTE:** PB = Pilot Bore

**NOTES:**

Pulleys of Gray Iron, Ductile Iron, Sintered Steel or Steel material supplied. Pulleys of either material provide required durability and service life. Gates reserves the right to supply pulleys of either material against orders for standard pulleys.

For rim speeds greater than 40 m/sec consult Gates Customer Service.

Some sizes may be non-stock. Please contact Gates Customer Service for availability.

# CLAMPING PLATES FOR LINEAR BELTING

## Metal clamping plates for synchronous belting



Use with Synchronous long-length belting including Poly Chain® GT Carbon®, PowerGrip® GT, Synchropower®, PowerGrip® Timing and HTD®.

Clamping Plate Material is Aluminium.



Clamping Plate ordering code is composed as follows:

CP-10-8M	
CP	- Clamping Plate
10	- Width
8M	- Pitch

**Note:**

Bolts are included.

### Poly Chain 8MGT

Description	Belt Width (mm)	Weight (kg)
CP-12-8MGT	12	0.23
CP-21-8MGT	21	0.28
CP-36-8MGT	36	0.37

### PowerGrip GT 8MGT

Description	Belt Width (mm)	Weight (kg)
CP-20-8GT	20	0.27
CP-30-8GT	30	0.33
CP-50-8GT	50	0.45

### PowerGrip HTD 14M

Description	Belt Width (mm)	Weight (kg)
CP-25-14M	25	0.77
CP-40-14M	40	0.99
CP-55-14M	55	1.18
CP-85-14M	85	1.59
CP-100-14M	100	1.78
CP-115-14M	115	1.98
CP-170-14M	170	2.71

### Poly Chain 14MGT

Description	Belt Width (mm)	Weight (kg)
CP-20-14MGT	20	0.71
CP-37-14MGT	37	0.94

### PowerGrip HTD 5M

Description	Belt Width (mm)	Weight (kg)
CP-5-5M	5	0.05
CP-10-5M	10	0.07
CP-15-5M	15	0.07
CP-25-5M	25	0.10
CP-50-5M	50	0.15

### PowerGrip GT 2MR

Description	Belt Width (mm)	Weight (kg)
CP-04-2MR	4	0.005
CP-06-2MR	6	0.005
CP-09-2MR	9	0.01

### PowerGrip GT 5MGT

Description	Belt Width (mm)	Weight (kg)
CP-9-5MGT	9	0.06
CP-15-5MGT	15	0.07
CP-25-5MGT	25	0.10

### PowerGrip HTD 8M

Description	Belt Width (mm)	Weight (kg)
CP-10-8M	10	0.22
CP-15-8M	15	0.25
CP-20-8M	20	0.27
CP-25-8M	25	0.30
CP-30-8M	30	0.33
CP-50-8M	50	0.45
CP-85-8M	85	0.65
CP-100-8M	100	0.73

### PowerGrip GT 3MR

Description	Belt Width (mm)	Weight (kg)
CP-06-3MR	6	0.02
CP-09-3MR	9	0.02
CP-15-3MR	15	0.02

# CLAMPING PLATES FOR LINEAR BELTING

## PowerGrip Timing XL

Description	Belt Width (inch)	Weight (kg)
CP-025-XL	0.250	0.05
CP-031-XL	0.313	0.06
CP-037-XL	0.375	0.06
CP-050-XL	0.500	0.06
CP-075-XL	0.750	0.08
CP-100-XL	1.000	0.10
CP-150-XL	1.500	0.12
CP-200-XL	2.000	0.15

## PowerGrip Timing L

Description	Belt Width (inch)	Weight (kg)
CP-037-L	0.375	0.25
CP-050-L	0.500	0.26
CP-075-L	0.750	0.30
CP-100-L	1.000	0.35
CP-150-L	1.500	0.44
CP-200-L	2.000	0.53
CP-300-L	3.000	0.70
CP-400-L	4.000	0.87

## PowerGrip Timing H

Description	Belt Width (inch)	Weight (kg)
CP-037-H	0.375	0.48
CP-050-H	0.500	0.52
CP-075-H	0.750	0.60
CP-100-H	1.000	0.67
CP-150-H	1.500	0.83
CP-200-H	2.000	0.98
CP-300-H	3.000	1.29
CP-400-H	4.000	1.59
CP-600-H	6.000	2.04

**NOTE:** Made to order. Please contact Gates Customer Service for availability.

## T5

Description	Belt Width (mm)	Weight (kg)
CP-6-T5	6	0.05
CP-10-T5	10	0.07
CP-16-T5	16	0.07
CP-25-T5	25	0.09
CP-32-T5	32	0.10
CP-50-T5	50	0.14
CP-75-T5	75	0.19
CP-100-T5	100	0.24

## T10

Description	Belt Width (mm)	Weight (kg)
CP-10-T10	10	0.27
CP-12-T10	12	0.28
CP-16-T10	16	0.31
CP-20-T10	20	0.34
CP-25-T10	25	0.37
CP-32-T10	32	0.43
CP-50-T10	50	0.55
CP-75-T10	75	0.73
CP-100-T10	100.00	0.91
CP-150-T10	150.00	1.26

## T20

Description	Belt Width (mm)	Weight (kg)
CP-25-T20	25	1.06
CP-32-T20	32	1.20
CP-50-T20	50	1.52
CP-75-T20	75	1.86
CP-100-T20	100	2.42
CP-150-T20	150	3.31

## AT5

Description	Belt Width (mm)	Weight (kg)
CP-6-AT5	6	0.05
CP-10-AT5	10	0.06
CP-12-AT5	12	0.07
CP-16-AT5	16	0.07
CP-20-AT5	20	0.08
CP-25-AT5	25	0.09
CP-32-AT5	32	0.10
CP-50-AT5	50	0.14
CP-75-AT5	75	0.19
CP-100-AT5	100	0.24

## AT10

Description	Belt Width (mm)	Weight (kg)
CP-16-AT10	16	0.31
CP-20-AT10	20	0.33
CP-25-AT10	25	0.36
CP-32-AT10	32	0.42
CP-50-AT10	50	0.53
CP-75-AT10	75	0.71
CP-100-AT10	100	0.89
CP-150-AT10	150	1.21

## AT20

Description	Belt Width (mm)	Weight (kg)
CP-25-AT20	25	1.04
CP-32-AT20	32	1.15
CP-50-AT20	50	1.45
CP-75-AT20	75	1.89
CP-100-AT20	100	2.31
CP-150-AT20	150	3.16

## Bolt Kits

Description
8MGT BOLT KIT
14MGT BOLT KIT
5MGT BOLT KIT
5HTD BOLT KIT
8HTD BOLT KIT
14HTD BOLT KIT
XL BOLT KIT
L BOLT KIT
H BOLT KIT
T5-AT5 BOLT KIT
T10-AT10 BOLT KIT
T20-AT20 BOLT KIT

# EUROGRIP® FLEXIBLE COUPLINGS

## The Designer's Choice



Electronic speed controls are increasingly being used in industry. In response to this requirement, Gates has developed a flexible coupling range covering standard motor sizes. Gates EuroGrip® flexible couplings consist of rubber sleeve and two metal end pieces. The design of Gates EuroGrip flexible couplings is unique, with its OGEE lines<sup>(1)</sup> allowing the coupling to act as a torque/life indicator for the drive.

Gates EuroGrip® flexible couplings are available in sizes 19, 28, 42, 48 and 60 and are bored to a suit taper brush or a plain bore and keyway.

Gates EuroGrip® flexible couplings have high vibration damping capacity, which makes them especially suitable for direct drive applications in pumps and compressors. Their high compliance is especially appreciated by designs of speed control systems, where resonance can be a problem. The zero backlash characteristics result in high positioning accuracy and repeatability, suitable for a wide range of applications in the linear actuator market.

### Identification

Unique OGEE lines<sup>(1)</sup> on the sleeve are an indicator of torque and product life.

### Construction

- Sleeves are made of a high-performance elastomeric compound. The sleeve design allows the coupling to act as a predictable fuse in the system.
- End pieces are made of a high-grade aluminum to reduce weight and inertia. The aluminium end pieces are anodised to increase wear resistance and strength. Available either with finished bore and keyway or to suit a taper brush.
- Temperatures range from -25°C to +100°C.

### Advantages

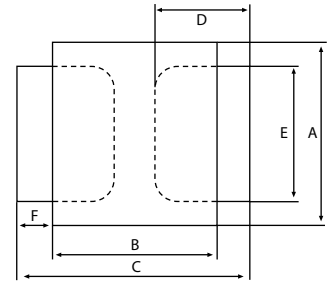
- High vibration damping - damping increases with load, which will prevent resonance.
- Low noise levels and quiet in operation
- Zero backlash and consequently, high positioning accuracy.
- Easy to install and to replace. Can be inspected without stopping the drive. Built-in safety measure: the driven machine will stop when the coupling fails.
- High tolerance of combinations of radial and angular misalignment.
- Durable.
- Low inertia.
- Compact design.
- Light weight.



# EUROGRIP® FLEXIBLE COUPLINGS

## Sleeve Dimensions

Coupling Size Code	Nominal Shaft (mm)	Sleeve OD (mm) [A]	Sleeve Length (mm) [B]	Sleeve Weight (g)	Coupling Total Length (mm) [C]
19	19	46	28	35	48
28	28	77	38	125	60
42	42	102	48	250	80
48	48	126	58	450	94
60	60	150	65	750	105



The principal dimensions of a EuroGrip® sleeve are the outside diameter, the sleeve length and the total coupling length. Gates EuroGrip® couplings are made in sizes 19,28,42,48 and 60.

## End Piece Dimensions

Coupling Size Code	Back Fixed Taper Bush	Front Fixed Taper Bush	End Piece Length (mm) [D]	Shoulder Diameter (mm) [E]	Shoulder Thickness (mm) [F]	Over Tooth Diameter (mm)	Weight with MPB (g)
19 <sup>(1)</sup>	MPB <sup>(2)</sup>	MPB <sup>(2)</sup>	22	42	9	36	50
28	1108	1008	28	72	11	62	200
42	1615	1215	38	96	16	84	550
48	2017	1615	45	118	18	104	1000
60	2517	2017	50	136	20	120	1350

(1) Size 19 available with a bore and key only.

All other EuroGrip® couplings (sizes 28,42,48 and 60) available with a bore and key or to suit a taper bush. Size 28 with 1108 taper bush requires a shallow key.

(2) MPB = Minimum Plain Bore.

**NOTE:** End pieces are keyed according to ISO.

Bore is to tolerance H7  $\frac{1}{10}$  (ISO). End pieces are also available with unfinished bore.

## EuroGrip Part Numbers

Coupling	Part	Part Number	Part	Part Number
19	Sleeve	9901-51901	14mm bore end piece	9902-01914
	19mm bore end piece	9902-01919		
	MPB end piece	9902-01900		
28	Sleeve	9901-52801	24mm bore end piece	9902-02824
	End Piece for taper bush - back fixed (1108)	9902-02801	28mm bore end piece	9902-02828
	End Piece for taper bush - front fixed (1008)	9902-02802	MPB end piece	9902-02800
42	Sleeve	9901-54201	38mm bore end piece	9902-04238
	End Piece for taper bush - back fixed (1615)	9902-04201	42mm bore end piece	9902-04242
	End Piece for taper bush - front fixed (1215)	9902-04202	MPB end piece	9902-04200
48	Sleeve	9901-54801	48mm bore end piece	9902-04848
	End Piece for taper bush - back fixed (2017)	9902-04801	MPB end piece	9902-04800
	End Piece for taper bush - front fixed (1615)	9902-04802		
60	Sleeve	9901-56001	55mm bore end piece	9902-06055
	End Piece for taper bush - back fixed (2517)	9902-06001	60mm bore end piece	9902-06060
	End Piece for taper bush - front fixed (2017)	9902-06002	MPB end piece	9902-06000