



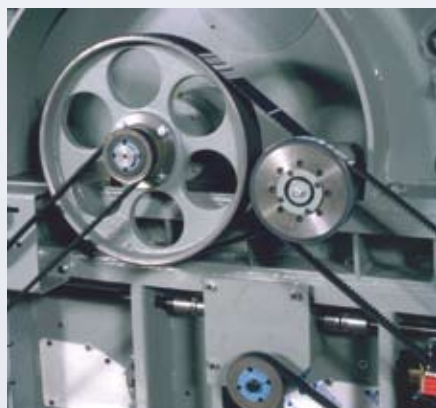
SYNCHRONOUS BELTS FOR HIGH TORQUE DRIVES



POWERGRIP® HTD® 8M, 14M & 20M

Rubber synchronous belt with HTD® tooth profile

The curvilinear PowerGrip® HTD® tooth geometry eliminates stress concentration at tooth roots and allows higher power capacity and longer life. PowerGrip® HTD® 8M, 14M and 20M belts are used in high performance drives in the machine tool, paper and textile industries where durability and low maintenance are required.



Identification

Three part number on the back of the belt indicating pitch length, tooth pitch and belt width in millimeters.

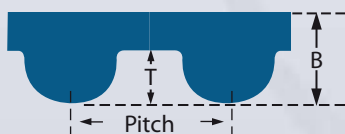
Construction

- Special curvilinear tooth form improves stress distribution and allows higher overall loading.
- Precisely formed and accurately spaced elastomeric teeth ensure correct positioning in the pulley grooves.
- Tough nylon facing protects the tooth surfaces.
- Tensile member provides the required strength combined with excellent flex life and high resistance to elongation.
- Durable elastomeric backing protects against environmental pollution as well as frictional wear if power is transmitted from the back of the belt.
- 8M and 14M pitch belts conform to ISO 13050.

Advantages

- Load capacities up to 1,000 kW.
- No slippage. PowerGrip® HTD® belt teeth mesh smoothly with pulley grooves, reducing speed variations.
- Wide speed range.
- Economical operation. No lubrication needed, no need for adjustment due to stretch and wear.
- High mechanical efficiency. The belt construction minimises heat build-up and, since friction is not required to transmit the load, belt tensions are reduced.
- Constant driven speeds.
- Long trouble-free service life (because of excellent abrasion resistance) in many applications where metal components like chains and gears wear out in a matter of months.
- PowerGrip® HTD® 14M: **static conductive (ISO 9563)** and can as such be used in the conditions described in the Directive 94/9/EC - ATEX.

Sections and nominal dimensions



	Pitch mm	T mm	B mm
8M	8.0	3.4	6.0
14M	14.0	6.1	10.0
20M	20.0	8.4	13.2

NOTE

For correct usage of the belt please request Gates' Synchronous Belt Drive Design Manual (E2/20099).



8M		
Pitch: 8 mm		
Description	Pitch length mm	Number of teeth
264-8M	264	33
320-8M	320	40
376-8M	376	47
384-8M	384	48
424-8M	424	53
480-8M	480	60
512-8M	512	64
520-8M	520	65
560-8M	560	70
576-8M	576	72
600-8M	600	75
608-8M	608	76
624-8M	624	78
640-8M	640	80
656-8M	656	82
720-8M	720	90
760-8M	760	95
776-8M	776	97
800-8M	800	100
856-8M	856	107
880-8M	880	110
912-8M	912	114
920-8M	920	115
960-8M	960	120
968-8M	968	121
976-8M	976	122
1000-8M	1000	125
1040-8M	1040	130
1064-8M	1064	133
1080-8M	1080	135
1120-8M	1120	140
1128-8M	1128	141
1160-8M	1160	145
1176-8M	1176	147
1200-8M	1200	150
1216-8M	1216	152
1224-8M	1224	153
1256-8M	1256	157
1264-8M	1264	158
1280-8M	1280	160
1304-8M	1304	163
1360-8M	1360	170
1424-8M	1424	178
1432-8M	1432	179
1440-8M	1440	180
1512-8M	1512	189
1520-8M	1520	190
1552-8M	1552	194
1584-8M	1584	198
1600-8M	1600	200
1696-8M	1696	212
1728-8M	1728	216
1760-8M	1760	220
1800-8M	1800	225
1896-8M	1896	237
1904-8M	1904	238
2000-8M	2000	250
2080-8M	2080	260
2200-8M	2200	275
2240-8M	2240	280
2272-8M	2272	284
2400-8M	2400	300
2504-8M	2504	313
2600-8M	2600	325
2800-8M	2800	350

Available in widths of 20 mm, 30 mm, 50 mm and 85 mm.

14M		
Pitch: 14 mm		
Description	Pitch length mm	Number of teeth
784-14M	784	56
826-14M	826	59
924-14M	924	66
966-14M	966	69
1092-14M	1092	78
1190-14M	1190	85
1400-14M	1400	100
1610-14M	1610	115
1778-14M	1778	127
1890-14M	1890	135
2100-14M	2100	150
2310-14M	2310	165
2450-14M	2450	175
2590-14M	2590	185
2800-14M	2800	200
3150-14M	3150	225
3500-14M	3500	250
3850-14M	3850	275
4004-14M	4004	286
4326-14M	4326	309
4578-14M	4578	327

Available in widths of 40 mm, 55 mm, 85 mm, 115 mm and 170 mm.

20M		
Pitch: 20 mm		
Description	Pitch length mm	Number of teeth
2000-20M	2000	100
2500-20M	2500	125
3400-20M	3400	170
3800-20M	3800	190
4200-20M	4200	210
4600-20M	4600	230
5000-20M	5000	250
5200-20M	5200	260
5400-20M	5400	270
5600-20M	5600	280
5800-20M	5800	290
6000-20M	6000	300
6200-20M	6200	310
6400-20M	6400	320
6600-20M	6600	330

Available in widths of 115 mm, 170 mm, 230 mm, 290 mm and 340 mm.

PowerGrip® HTD® ordering code is composed as follows:

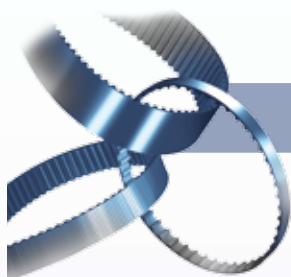
480-8M-20

480 - Pitch length (mm)
8M - Pitch 8 mm
20 - Belt width (mm)

Dimensions in bold are available from stock.



SYNCHRONOUS BELTS FOR HIGH TORQUE DRIVES



POWERGRIP® HTD® 3M & 5M

Rubber synchronous belt with HTD® tooth profile

Because of an optimised load distribution, the HTD® curvilinear tooth form guarantees high power transmission in low speed and high torque applications. PowerGrip® HTD® 3M and 5M belts are suitable for domestic appliances, office machines, electric hand tools and for applications in the processing and chemical industry.



Identification

Three part number on the back of the belt indicating pitch length, tooth pitch and belt width in millimeters.

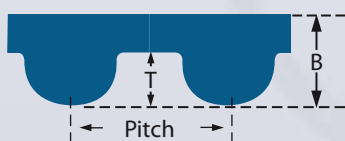
Construction

- Special curvilinear tooth design improves stress distribution and allows higher overall loading.
- Precisely formed and accurately spaced elastomeric teeth ensure smooth engagement with the pulley grooves.
- Durable elastomeric backing protects the belt against environmental pollution as well as frictional wear if power is transmitted from the back of the belt.
- Tough nylon facing protects the tooth surface.
- Fibreglass tensile cords.

Advantages

- 3M and 5M PowerGrip® HTD® are designed for speeds up to 20,000 rpm and capacities up to 10 kW.
- The optimised tooth form permits high loads to be transmitted, even in small pitches.
- Peripheral speed up to 80 m/s.
- Efficiencies up to 99%.
- Compact design.
- 25% improved tooth jump resistance vs. CTB.
- Long service life and maintenance-free.

Sections and nominal dimensions



	Pitch mm	T mm	B mm
3M	3.0	1.2	2.4
5M	5.0	2.1	3.8

NOTE

For correct usage of the belt please request Gates' Synchronous Belt Drive Design Manual (E2/20099).

**3M**

Pitch: 3 mm

Description	Pitch length mm	Number of teeth
105-3M	105	35
111-3M	111	37
120-3M	120	40
123-3M	123	41
126-3M	126	42
129-3M	129	43
141-3M	141	47
144-3M	144	48
150-3M	150	50
156-3M	156	52
159-3M	159	53
165-3M	165	55
168-3M	168	56
171-3M	171	57
174-3M	174	58
177-3M	177	59
180-3M	180	60
183-3M	183	61
186-3M	186	62
189-3M	189	63
192-3M	192	64
195-3M	195	65
201-3M	201	67
204-3M	204	68
210-3M	210	70
213-3M	213	71
216-3M	216	72
219-3M	219	73
222-3M	222	74
225-3M	225	75
234-3M	234	78
237-3M	237	79
243-3M	243	81
246-3M	246	82
249-3M	249	83
252-3M	252	84
255-3M	255	85
267-3M	267	89
276-3M	276	92
282-3M	282	94
285-3M	285	95
288-3M	288	96
291-3M	291	97
294-3M	294	98
297-3M	297	99
300-3M	300	100
306-3M	306	102
312-3M	312	104
315-3M	315	105
318-3M	318	106
330-3M	330	110
333-3M	333	111
336-3M	336	112
339-3M	339	113
342-3M	342	114
345-3M	345	115
357-3M	357	119
363-3M	363	121
372-3M	372	124
381-3M	381	127
384-3M	384	128
420-3M	420	140
435-3M	435	145
447-3M	447	149
462-3M	462	154
474-3M	474	158
477-3M	477	159
480-3M	480	160

Description	Pitch length mm	Number of teeth
486-3M	486	162
489-3M	489	163
501-3M	501	167
513-3M	513	171
522-3M	522	174
525-3M	525	175
531-3M	531	177
537-3M	537	179
552-3M	552	184
558-3M	558	186
564-3M	564	188
570-3M	570	190
573-3M	573	191
582-3M	582	194
591-3M	591	197
594-3M	594	198
600-3M	600	200
612-3M	612	204
627-3M	627	209
633-3M	633	211
645-3M	645	215
648-3M	648	216
669-3M	669	223
672-3M	672	224
681-3M	681	227
711-3M	711	237
720-3M	720	240
735-3M	735	245
738-3M	738	246
753-3M	753	251
804-3M	804	268
822-3M	822	274
882-3M	882	294
945-3M	945	315
981-3M	981	327
1002-3M	1002	334
1071-3M	1071	357
1080-3M	1080	360
1176-3M	1176	392
1245-3M	1245	415
1263-3M	1263	421
1500-3M	1500	500
1530-3M	1530	510
1863-3M	1863	621
1926-3M	1926	642

Available in widths of 6 mm, 9 mm and 15 mm.

5M

Pitch: 5 mm

Description	Pitch length mm	Number of teeth
120-5M	120	24
180-5M	180	36
225-5M	225	45
255-5M	255	51
265-5M	265	53
270-5M	270	54
275-5M	275	55
280-5M	280	56
295-5M	295	59
300-5M	300	60
305-5M	305	61
325-5M	325	65
330-5M	330	66
335-5M	335	67
340-5M	340	68
345-5M	345	69
350-5M	350	70
360-5M	360	72
365-5M	365	73
370-5M	370	74
375-5M	375	75
385-5M	385	77
400-5M	400	80
405-5M	405	81
420-5M	420	84
425-5M	425	85
450-5M	450	90
460-5M	460	92
475-5M	475	95
500-5M	500	100
510-5M	510	102
520-5M	520	104
525-5M	525	105
535-5M	535	107
550-5M	550	110
560-5M	560	112
565-5M	565	113
575-5M	575	115
580-5M	580	116
600-5M	600	120
610-5M	610	122
615-5M	615	123
635-5M	635	127
640-5M	640	128
645-5M	645	129
665-5M	665	133
670-5M	670	134
695-5M	695	139
700-5M	700	140
710-5M	710	142
720-5M	720	144
740-5M	740	148
750-5M	750	150
755-5M	755	151
770-5M	770	154
775-5M	775	155
800-5M	800	160
825-5M	825	165
835-5M	835	167
860-5M	860	172
870-5M	870	174
890-5M	890	178
900-5M	900	180
925-5M	925	185
935-5M	935	187
940-5M	940	188
950-5M	950	190
965-5M	965	193

Description	Pitch length mm	Number of teeth
980-5M	980	196
1000-5M	1000	200
1025-5M	1025	205
1035-5M	1035	207
1050-5M	1050	210
1100-5M	1100	220
1125-5M	1125	225
1135-5M	1135	227
1175-5M	1175	235
1200-5M	1200	240
1225-5M	1225	245
1270-5M	1270	254
1350-5M	1350	270
1380-5M	1380	276
1420-5M	1420	284
1595-5M	1595	319
1690-5M	1690	338
1790-5M	1790	358
1870-5M	1870	374
2100-5M	2100	420
2350-5M	2350	470

Available in widths of 9 mm, 15 mm and 25 mm.

PowerGrip® HTD® ordering code is composed as follows:

280-5M-15

280 - Pitch length (mm)
5M - Pitch 5 mm
15 - Belt width (mm)

Dimensions in bold are available from stock.