

PU Torque HTD5M Steel

Article code: TBUT002100

General information

Productgroup	Timing belts, PU Torque
Industry segment	General industry; Container & packaging; Paper & print
Main product feature	Positive drive, Non-marking, Wear resistant

Belt construction

Tension member		steel
Material	body	Polyurethane
Surface	tooth side	Polyurethane
	back side	Polyurethane

Characteristics

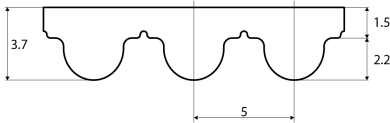
Food Grade (FG)	no
Anti-static (AS)	no
Oil & Fat resistance	Good

Technical data

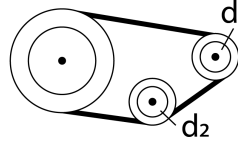
Tooth	profile		HTD5M	
	pitch		5 mm	0.2 in.
Hardness body material	according to ISO 868		92A Shore	
Belt thickness			3.6 mm	0.14 in.
Belt weight			4.8 kg/m ²	0.98 lbs/ft ²
Coefficient of friction	tooth side to steel	dynamic	0.5	
Operating temperature	continuous	from/to	-10 / 80 °C	14 / 176 °F
Minimum pulley diameter	A) without counter flexing	number of teeth, t1	16	
		d1	24.32 mm	0.96 in.
		d2	50 mm	1.97 in.
	B) with counter flexing	number of teeth, t1	20	
		d1	30.69 mm	1.21 in.
		d2	50 mm	1.97 in.
Belt width	maximum		150 mm	5.91 in.
Belt length	minimum		900 mm	35.43 in.
	maximum		25000 mm	82.02 ft.

Reference images

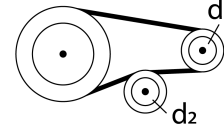
Side view



A) without counter flexing



B) with counter flexing



Fabrication

This information on the fabrication options is general, please contact Ammeraal Beltech to inquire for the specific fabrication possibilities of the timing belt of your choice.

Cleats welded or mechanically attached, metal teeth, guides welded or glued.

Covers can be welded, glued, coated or vulkanized onto the back side of the timing belt.

Thermoplastic covers can be embossed.

Perforations, lateral and longitudinal slots, lateral and longitudinal profiles.

Additional Information

Tooth profile according to standard: metric ISO 17396 , imperial ISO 5296-1, curvilinear ISO 13050, depending on the belt type.

This sheet contains typical values, which apply to a temperature of approx. 20 °C (68 °F) unless otherwise stated, individual data may differ.

Consult our specialists for further information like technical calculations. Instructions regarding joining, storage & maintenance and tracking & tensioning.

Belt load

Standard belt width [mm]	Allow. tensile load Linear open end & Torque [N]	Allow. tensile load Linear welded endless [N]	Breaking force [N]	Spring force [N]
10	880	440	3200	220000
15	1320	660	4800	330000
20	1750	875	6300	450000
30	2600	1300	9500	690000
50	5060	2530	18400	1265000
85	8600	4300	31200	2120000
100.1	10120	5060	36800	2530000

Tooth load

Speed rpm [1/min]	Specific tooth force [N/mm]	Specific power [W/mm]	Specific torque [Ncm/mm]
0	3.68	0	0.293
25	3.588	0.007	0.286
50	3.545	0.015	0.282
75	3.5	0.022	0.279
100	3.452	0.029	0.275
150	3.37	0.042	0.268
200	3.27	0.055	0.26
300	3.125	0.078	0.249
400	3.017	0.101	0.24
500	2.931	0.122	0.233
750	2.753	0.172	0.219
1000	2.605	0.217	0.207
1250	2.479	0.258	0.197
1500	2.371	0.296	0.189
1750	2.278	0.332	0.181
2000	2.191	0.365	0.174
3000	1.923	0.481	0.153
4000	1.723	0.574	0.137

Belt load

Number of teeth	outer Ø [mm]	Effective Ø [mm]	Ø with flanges [mm]	Max. bore [mm]
15	22.73	23.87	27	8
16	24.32	25.46	30	10
17	25.92	27.06	31	12
18	27.51	28.65	33	14
19	29.10	30.24	34	16
20	30.69	31.83	36	18
21	32.28	33.42	37	20
22	33.87	35.01	39	22
23	35.47	36.61	41	24
24	37.06	38.20	42	24
25	38.65	39.79	44	25
26	40.24	41.38	45	25
27	41.83	42.97	47	27
28	43.42	44.56	49	29
29	45.02	46.16	50	31
30	46.61	47.75	52	33
31	48.20	49.34	53	35
32	49.79	50.93	55	37
33	51.38	52.52	57	39
34	52.97	54.11	58	39
35	54.56	55.70	60	40
36	56.16	57.30	61	42
37	57.75	58.89	63	43
38	59.34	60.48	65	45
39	60.93	62.07	66	45
40	62.52	63.66	68	47
41	64.11	65.25	69	48
42	65.71	66.85	71	48
43	67.30	68.44	72	50
44	68.89	70.03	74	52
45	70.48	71.62	76	54
46	72.07	73.21	77	56
47	73.66	74.80	79	58
48	75.25	76.39	80	60
49	76.85	77.99	82	60
50	78.44	79.58	84	62
51	80.03	81.17	85	62
52	81.62	82.76	87	64
53	83.21	84.35	88	66
54	84.80	85.94	90	66
55	86.40	87.54	92	68
56	87.99	89.13	93	70
57	89.58	90.72	95	72
58	91.17	92.31	96	72
59	92.76	93.90	98	74
60	94.35	95.49	100	76
61	95.94	97.08	101	78
62	97.54	98.68	103	80
63	99.13	100.27	104	82
64	100.72	101.86	106	82
65	102.31	103.45	108	84
66	103.90	105.04	109	86
67	105.49	106.63	111	88

Standard

Number of teeth	outer Ø [mm]	Effective Ø [mm]	Ø with flanges [mm]	Max. bore [mm]
68	107.09	108.23	112	90
69	108.68	109.82	114	90
70	110.27	111.41	115	90
71	111.86	113.00	117	92
72	113.45	114.59	119	94
73	115.04	116.18	120	94
74	116.63	117.77	122	96
75	118.23	119.37	123	96
76	119.82	120.96	125	98
77	121.41	122.55	127	100
78	123.00	124.14	128	102
79	124.59	125.73	130	104
80	126.18	127.32	131	106
81	127.78	128.92	133	108
82	129.37	130.51	135	110
83	130.96	132.01	136	110
84	132.55	133.69	138	112
85	134.14	135.28	139	114
86	135.73	136.87	141	116
87	137.32	138.46	143	118
88	138.92	140.06	144	119
89	140.51	141.65	146	120
90	142.10	143.24	147	120
91	143.69	144.83	149	122
92	145.28	146.42	150	124
93	146.87	148.01	152	124
94	148.47	149.61	154	126
95	150.06	151.20	155	127
96	151.65	152.79	157	129
97	153.24	154.38	158	130
98	154.83	155.97	160	130
99	156.42	157.56	162	132
100	158.02	159.16	163	132
101	159.61	160.75	165	134
102	161.20	162.34	166	134
103	162.79	163.93	168	136
104	164.38	165.52	170	138
105	165.97	167.11	171	140
106	167.56	168.70	173	142
107	169.16	170.30	174	144
108	170.75	171.89	176	146
109	172.34	173.48	178	148
110	173.93	175.07	179	150
111	175.52	176.66	181	150
112	177.11	178.25	182	152
113	178.71	179.85	184	152
114	180.30	181.44	185	152
115	181.89	183.03	187	154
116	183.48	184.62	189	154
117	185.07	186.21	190	154
118	186.66	187.80	192	156
119	188.25	189.39	193	156
120	189.85	190.99	195	156