



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.

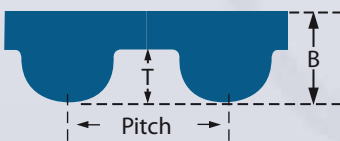
### Construction

- 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
<b>3M</b>	3.0	1.2	2.4
<b>5M</b>	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	Description	Pitch length mm	Number of teeth
105-3M	105	35	486-3M	486	162
111-3M	111	37	489-3M	489	163
120-3M	120	40	<b>501-3M</b>	<b>501</b>	<b>167</b>
123-3M	123	41	513-3M	513	171
126-3M	126	42	522-3M	522	174
129-3M	129	43	525-3M	525	175
141-3M	141	47	531-3M	531	177
144-3M	144	48	537-3M	537	179
<b>150-3M</b>	<b>150</b>	<b>50</b>	552-3M	552	184
<b>156-3M</b>	<b>156</b>	<b>52</b>	558-3M	558	186
<b>159-3M</b>	<b>159</b>	<b>53</b>	<b>564-3M</b>	<b>564</b>	<b>188</b>
165-3M	165	55	570-3M	570	190
<b>168-3M</b>	<b>168</b>	<b>56</b>	573-3M	573	191
171-3M	171	57	<b>582-3M</b>	<b>582</b>	<b>194</b>
174-3M	174	58	591-3M	591	197
<b>177-3M</b>	<b>177</b>	<b>59</b>	594-3M	594	198
<b>180-3M</b>	<b>180</b>	<b>60</b>	600-3M	600	200
183-3M	183	61	<b>612-3M</b>	<b>612</b>	<b>204</b>
186-3M	186	62	627-3M	627	209
189-3M	189	63	<b>633-3M</b>	<b>633</b>	<b>211</b>
<b>192-3M</b>	<b>192</b>	<b>64</b>	<b>645-3M</b>	<b>645</b>	<b>215</b>
<b>195-3M</b>	<b>195</b>	<b>65</b>	648-3M	648	216
<b>201-3M</b>	<b>201</b>	<b>67</b>	<b>669-3M</b>	<b>669</b>	<b>223</b>
204-3M	204	68	672-3M	672	224
<b>210-3M</b>	<b>210</b>	<b>70</b>	681-3M	681	227
213-3M	213	71	<b>711-3M</b>	<b>711</b>	<b>237</b>
216-3M	216	72	<b>720-3M</b>	<b>720</b>	<b>240</b>
219-3M	219	73	735-3M	735	245
222-3M	222	74	738-3M	738	246
<b>225-3M</b>	<b>225</b>	<b>75</b>	<b>753-3M</b>	<b>753</b>	<b>251</b>
234-3M	234	78	<b>804-3M</b>	<b>804</b>	<b>268</b>
237-3M	237	79	<b>822-3M</b>	<b>822</b>	<b>274</b>
<b>243-3M</b>	<b>243</b>	<b>81</b>	882-3M	882	294
<b>246-3M</b>	<b>246</b>	<b>82</b>	<b>945-3M</b>	<b>945</b>	<b>315</b>
<b>249-3M</b>	<b>249</b>	<b>83</b>	981-3M	981	327
<b>252-3M</b>	<b>252</b>	<b>84</b>	1002-3M	1002	334
<b>255-3M</b>	<b>255</b>	<b>85</b>	1071-3M	1071	357
<b>267-3M</b>	<b>267</b>	<b>89</b>	1080-3M	1080	360
<b>276-3M</b>	<b>276</b>	<b>92</b>	1176-3M	1176	392
<b>282-3M</b>	<b>282</b>	<b>94</b>	1245-3M	1245	415
<b>285-3M</b>	<b>285</b>	<b>95</b>	<b>1263-3M</b>	<b>1263</b>	<b>421</b>
<b>288-3M</b>	<b>288</b>	<b>96</b>	<b>1500-3M</b>	<b>1500</b>	<b>500</b>
<b>291-3M</b>	<b>291</b>	<b>97</b>	<b>1530-3M</b>	<b>1530</b>	<b>510</b>
<b>294-3M</b>	<b>294</b>	<b>98</b>	1863-3M	1863	621
297-3M	297	99	1926-3M	1926	642
<b>300-3M</b>	<b>300</b>	<b>100</b>			
<b>306-3M</b>	<b>306</b>	<b>102</b>			
<b>312-3M</b>	<b>312</b>	<b>104</b>			
315-3M	315	105			
<b>318-3M</b>	<b>318</b>	<b>106</b>			
<b>330-3M</b>	<b>330</b>	<b>110</b>			
<b>333-3M</b>	<b>333</b>	<b>111</b>			
<b>336-3M</b>	<b>336</b>	<b>112</b>			
339-3M	339	113			
342-3M	342	114			
<b>345-3M</b>	<b>345</b>	<b>115</b>			
<b>357-3M</b>	<b>357</b>	<b>119</b>			
<b>363-3M</b>	<b>363</b>	<b>121</b>			
<b>372-3M</b>	<b>372</b>	<b>124</b>			
381-3M	381	127			
<b>384-3M</b>	<b>384</b>	<b>128</b>			
<b>420-3M</b>	<b>420</b>	<b>140</b>			
<b>435-3M</b>	<b>435</b>	<b>145</b>			
<b>447-3M</b>	<b>447</b>	<b>149</b>			
<b>462-3M</b>	<b>462</b>	<b>154</b>			
<b>474-3M</b>	<b>474</b>	<b>158</b>			
477-3M	477	159			
<b>480-3M</b>	<b>480</b>	<b>160</b>			

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

### 5M

Pitch: 5 mm

Description	Pitch length mm	Number of teeth	Description	Pitch length mm	Number of teeth
120-5M	120	24	<b>980-5M</b>	<b>980</b>	<b>196</b>
<b>180-5M</b>	<b>180</b>	<b>36</b>	<b>1000-5M</b>	<b>1000</b>	<b>200</b>
<b>225-5M</b>	<b>225</b>	<b>45</b>	<b>1025-5M</b>	<b>1025</b>	<b>205</b>
<b>255-5M</b>	<b>255</b>	<b>51</b>	<b>1035-5M</b>	<b>1035</b>	<b>207</b>
<b>265-5M</b>	<b>265</b>	<b>53</b>	<b>1050-5M</b>	<b>1050</b>	<b>210</b>
<b>270-5M</b>	<b>270</b>	<b>54</b>	<b>1100-5M</b>	<b>1100</b>	<b>220</b>
275-5M	275	55	<b>1125-5M</b>	<b>1125</b>	<b>225</b>
<b>280-5M</b>	<b>280</b>	<b>56</b>	<b>1135-5M</b>	<b>1135</b>	<b>227</b>
<b>295-5M</b>	<b>295</b>	<b>59</b>	<b>1175-5M</b>	<b>1175</b>	<b>235</b>
<b>300-5M</b>	<b>300</b>	<b>60</b>	<b>1200-5M</b>	<b>1200</b>	<b>240</b>
<b>305-5M</b>	<b>305</b>	<b>61</b>	<b>1225-5M</b>	<b>1225</b>	<b>245</b>
<b>325-5M</b>	<b>325</b>	<b>65</b>	<b>1270-5M</b>	<b>1270</b>	<b>254</b>
<b>330-5M</b>	<b>330</b>	<b>66</b>	<b>1350-5M</b>	<b>1350</b>	<b>270</b>
335-5M	335	67	1380-5M	1380	276
<b>340-5M</b>	<b>340</b>	<b>68</b>	<b>1420-5M</b>	<b>1420</b>	<b>284</b>
<b>345-5M</b>	<b>345</b>	<b>69</b>	<b>1595-5M</b>	<b>1595</b>	<b>319</b>
<b>350-5M</b>	<b>350</b>	<b>70</b>	<b>1690-5M</b>	<b>1690</b>	<b>338</b>
<b>360-5M</b>	<b>360</b>	<b>72</b>	<b>1790-5M</b>	<b>1790</b>	<b>358</b>
<b>365-5M</b>	<b>365</b>	<b>73</b>	<b>1870-5M</b>	<b>1870</b>	<b>374</b>
<b>370-5M</b>	<b>370</b>	<b>74</b>	<b>2100-5M</b>	<b>2100</b>	<b>420</b>
<b>375-5M</b>	<b>375</b>	<b>75</b>	<b>2350-5M</b>	<b>2350</b>	<b>470</b>
<b>385-5M</b>	<b>385</b>	<b>77</b>			
<b>400-5M</b>	<b>400</b>	<b>80</b>			
<b>405-5M</b>	<b>405</b>	<b>81</b>			
<b>420-5M</b>	<b>420</b>	<b>84</b>			
<b>425-5M</b>	<b>425</b>	<b>85</b>			
<b>450-5M</b>	<b>450</b>	<b>90</b>			
<b>460-5M</b>	<b>460</b>	<b>92</b>			
<b>475-5M</b>	<b>475</b>	<b>95</b>			
<b>500-5M</b>	<b>500</b>	<b>100</b>			
510-5M	510	102			
<b>520-5M</b>	<b>520</b>	<b>104</b>			
<b>525-5M</b>	<b>525</b>	<b>105</b>			
<b>535-5M</b>	<b>535</b>	<b>107</b>			
<b>550-5M</b>	<b>550</b>	<b>110</b>			
<b>560-5M</b>	<b>560</b>	<b>112</b>			
<b>565-5M</b>	<b>565</b>	<b>113</b>			
<b>575-5M</b>	<b>575</b>	<b>115</b>			
<b>580-5M</b>	<b>580</b>	<b>116</b>			
<b>600-5M</b>	<b>600</b>	<b>120</b>			
<b>610-5M</b>	<b>610</b>	<b>122</b>			
<b>615-5M</b>	<b>615</b>	<b>123</b>			
<b>635-5M</b>	<b>635</b>	<b>127</b>			
<b>640-5M</b>	<b>640</b>	<b>128</b>			
<b>645-5M</b>	<b>645</b>	<b>129</b>			
<b>665-5M</b>	<b>665</b>	<b>133</b>			
<b>670-5M</b>	<b>670</b>	<b>134</b>			
<b>695-5M</b>	<b>695</b>	<b>139</b>			
<b>700-5M</b>	<b>700</b>	<b>140</b>			
<b>710-5M</b>	<b>710</b>	<b>142</b>			
<b>720-5M</b>	<b>720</b>	<b>144</b>			
<b>740-5M</b>	<b>740</b>	<b>148</b>			
<b>750-5M</b>	<b>750</b>	<b>150</b>			
<b>755-5M</b>	<b>755</b>	<b>151</b>			
<b>770-5M</b>	<b>770</b>	<b>154</b>			
<b>775-5M</b>	<b>775</b>	<b>155</b>			
<b>800-5M</b>	<b>800</b>	<b>160</b>			
<b>825-5M</b>	<b>825</b>	<b>165</b>			
<b>835-5M</b>	<b>835</b>	<b>167</b>			
<b>860-5M</b>	<b>860</b>	<b>172</b>			
<b>870-5M</b>	<b>870</b>	<b>174</b>			
<b>890-5M</b>	<b>890</b>	<b>178</b>			
900-5M	900	180			
<b>925-5M</b>	<b>925</b>	<b>185</b>			
<b>935-5M</b>	<b>935</b>	<b>187</b>			
940-5M	940	188			
<b>950-5M</b>	<b>950</b>	<b>190</b>			
965-5M	965	193			

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

PowerGrip® HTD® ordering code is composed as follows:

<b>280-5M-15</b>	
<b>280</b>	- Pitch length (mm)
<b>5M</b>	- Pitch 5 mm
<b>15</b>	- Belt width (mm)

Dimensions in bold are available from stock.