

# PU Torque HTD5M Steel NT

Article code: TBUT102100

## General information

|                             |                                                                     |
|-----------------------------|---------------------------------------------------------------------|
| <b>Productgroup</b>         | Timing belts, PU Torque                                             |
| <b>Industry segment</b>     | General industry; Container & packaging; Paper & print              |
| <b>Main product feature</b> | Low friction tooth side, Positive drive, Wear resistant bottom side |

## Belt construction

|                       |                   |                  |
|-----------------------|-------------------|------------------|
| <b>Tension member</b> |                   | steel            |
| <b>Material</b>       | <b>body</b>       | Polyurethane     |
| <b>Surface</b>        | <b>tooth side</b> | Polyamide fabric |
|                       | <b>back side</b>  | Polyurethane     |

## Characteristics

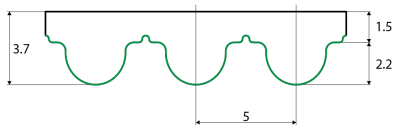
|                                 |     |
|---------------------------------|-----|
| <b>Food Grade (FG)</b>          | no  |
| <b>Antistatic (AS)</b>          | no  |
| <b>Oil &amp; Fat resistance</b> | yes |

## Technical data

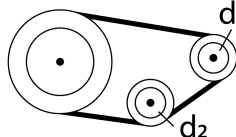
|                                |                            |                     |                       |                          |  |
|--------------------------------|----------------------------|---------------------|-----------------------|--------------------------|--|
| <b>Tooth</b>                   | profile                    |                     | HTD5M                 |                          |  |
|                                | pitch                      |                     | 5 mm                  | 0.2 in.                  |  |
| <b>Hardness body material</b>  | ISO 868                    |                     | 92A Shore             |                          |  |
| <b>Belt thickness</b>          |                            |                     | 3.6 mm                | 0.14 in.                 |  |
| <b>Belt weight</b>             |                            |                     | 4.8 kg/m <sup>2</sup> | 0.98 lbs/ft <sup>2</sup> |  |
| <b>Coefficient of friction</b> | tooth side to steel        | dynamic             | 0,3                   |                          |  |
| <b>Operating temperature</b>   | continuous                 | from / to           | -10 / 80 °C           | 14 / 176 °F              |  |
| <b>Minimum pulley diameter</b> | 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.                 |  |
| <b>Belt width</b>              | maximum                    |                     | 150 mm                | 5.91 in.                 |  |
| <b>Belt length</b>             | minimum                    |                     | 900 mm                | 35.43 in.                |  |
|                                | maximum                    |                     | 25000 mm              | 82.02 ft.                |  |

## Reference images

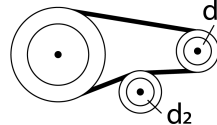
### Side view



### 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 logitudinal 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.

| Standard belt width [mm] | Allow. tensile load<br>Linear open end<br>& Torque [N] | Allow. tensile load<br>Linear welded endless<br>[N] |  | Spring force [N] |
|--------------------------|--------------------------------------------------------|-----------------------------------------------------|--|------------------|
| 10                       | 880                                                    | 440                                                 |  | 220000           |
| 15                       | 1320                                                   | 660                                                 |  | 330000           |
| 20                       | 1750                                                   | 875                                                 |  | 450000           |
| 30                       | 2600                                                   | 1300                                                |  | 690000           |
| 50                       | 5060                                                   | 2530                                                |  | 1265000          |
| 85                       | 8600                                                   | 4300                                                |  | 2120000          |
| 100.1                    | 10120                                                  | 5060                                                |  | 2530000          |

| Speed rpm [1/min] | Specific tooth force<br>[N/mm] | Specific power [W/mm] |  |
|-------------------|--------------------------------|-----------------------|--|
| 0                 | 3.68                           | 0                     |  |
| 25                | 3.588                          | 0.007                 |  |
| 50                | 3.545                          | 0.015                 |  |
| 75                | 3.5                            | 0.022                 |  |
| 100               | 3.452                          | 0.029                 |  |
| 150               | 3.37                           | 0.042                 |  |
| 200               | 3.27                           | 0.055                 |  |
| 300               | 3.125                          | 0.078                 |  |
| 400               | 3.017                          | 0.101                 |  |
| 500               | 2.931                          | 0.122                 |  |
| 750               | 2.753                          | 0.172                 |  |
| 1000              | 2.605                          | 0.217                 |  |
| 1250              | 2.479                          | 0.258                 |  |
| 1500              | 2.371                          | 0.296                 |  |
| 1750              | 2.278                          | 0.332                 |  |
| 2000              | 2.191                          | 0.365                 |  |
| 3000              | 1.923                          | 0.481                 |  |
| 4000              | 1.723                          | 0.574                 |  |

|                 |  |
|-----------------|--|
|                 |  |
| <b>Standard</b> |  |