

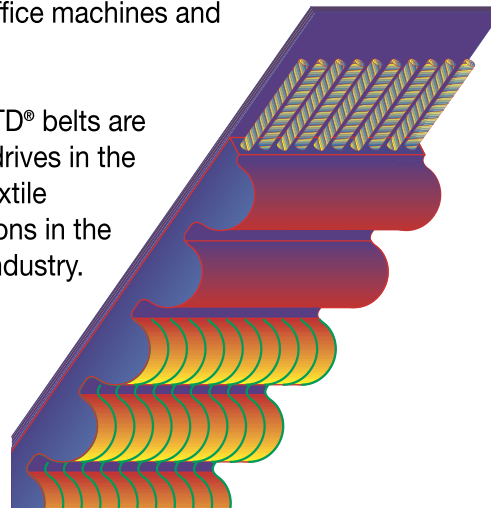
POWERGRIP® HTD® BELT COMPONENTS AND BENEFITS



PowerGrip® HTD® drives provide positive power transmission for a wide range of industrial applications, and offer many advantages over conventional chain and gear drives.

3M and 5M pitch HTD® belts are especially suited for domestic appliances, office machines and electric hand tools.

8M, 14M and 20M pitch HTD® belts are used in high performance drives in the machine tool, paper and textile industries and for applications in the processing and chemical industry.



FEATURES

- Special curvilinear tooth design substantially improves stress distribution and allows higher overall loading.
- Precisely formed and accurately spaced elastomeric teeth ensure smooth engagement with the pulley grooves.
- Fibreglass tensile cords provide necessary strength, excellent flex life plus high resistance to elongation.
- The durable backing protects against environmental pollution. It also protects against frictional wear if power is transmitted from the back of the belt.
- Tough nylon facing protects the tooth surface.

BENEFITS

- 3M and 5M pitch belts: for speeds up to 20000 rpm and capacities up to 10 kW.
- 8M, 14M and 20M pitch belts: capacities up to 1000 kW.
- Positive slip-proof engagement.
- Wide speed range.
- Constant driven speeds.
- Efficiencies up to 99%.
- Compact design. High flexibility allows the use of very small pulleys (outside pulley diameters from 8.79 mm).
- Long trouble-free service life.

POWERGRIP® HTD® SYSTEM SPECIFICATIONS

POWERGRIP® HTD® BELT DIMENSIONS

The three principal dimensions of a PowerGrip® HTD® belt are

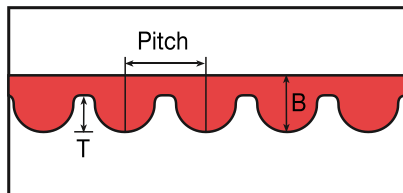
- pitch;
- pitch length;
- width.

Belt pitch is the distance in millimetres between two adjacent tooth centres as measured on the pitch line of the belt. Belt pitch length is the total length (circumference) in millimetres as measured along the pitch line. The theoretical pitch line of a PowerGrip® HTD® belt lies within the tensile member.

Gates PowerGrip® HTD® belts are made in five stock pitches.

REFERENCE DIMENSIONS

	Pitch mm	T mm	B mm
3M	3.0	1.17	2.41
5M	5.0	2.08	3.81
8M	8.0	3.40	5.60
14M	14.0	6.00	10.00
20M	20.0	8.40	13.20



Gates PowerGrip® HTD® belt sizes are listed on pages 15-17. These tables list the belt lengths & pitch codes, pitch lengths and number of teeth. On these pages you will also find the standard widths. Using these tables, you will have all the information to complete the PowerGrip® HTD® ordering code.

Example: HTD 1040 8M 30
 HTD PowerGrip® HTD®
 1040 Pitch length (mm)
 8M Pitch 8 mm
 30 Belt width (mm)

POWERGRIP® HTD® PULLEY DIMENSIONS

The three principal dimensions of a pulley are

- pitch;
- number of grooves;
- belt width.

On the pulley, pitch is the distance between groove centres and is measured on the pulley's pitch circle. The pitch circle of the pulley coincides with the pitch line of the belt engaging with it. The pulley's pitch diameter is always greater than its outside diameter.

A given PowerGrip® HTD® belt must be run on pulleys of the same pitch. Pulleys for PowerGrip® HTD® belts are made in 3, 5, 8, 14 and 20 mm pitches.

Standard pulley diameters are listed on pages 149-151. These tables list the number of grooves, the flange diameter and the outside diameter. On these pages you will also find the belt and pulley widths. Using these tables, you will have all the information to complete the pulley ordering code.

Example: P48-8M-50

P48 Pulley designation (P) and number of grooves (48)
 8M Pitch 8 mm
 50 Belt width (mm)

