

POWERGRIP® GT3 BELT COMPONENTS AND BENEFITS



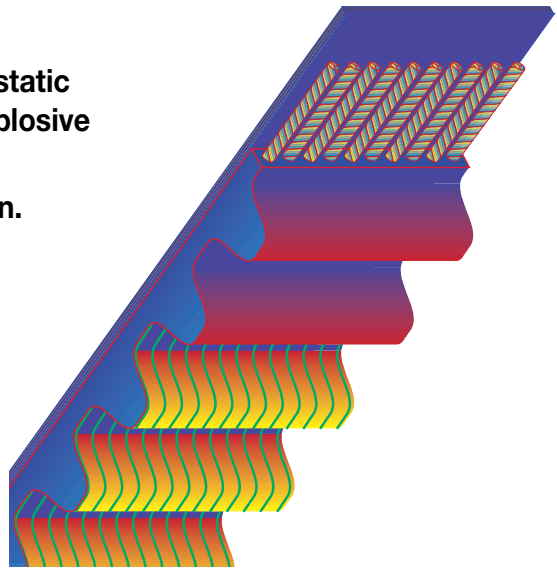
By the use of a technologically advanced compound, PowerGrip® GT3 synchronous belts transmit up to 30% more power than previous generation belts. They allow the design of more compact drives with higher power capacity, which increases space utilisation and cost effectiveness.

They are a perfect replacement for HTD® and GT type drives.

PowerGrip® GT3 is available in five pitches, small 2MGT, 3MGT and 5MGT as well as large 8MGT and 14MGT pitches and covers the widest range of industrial applications.

PowerGrip® GT3 8MGT and 14MGT pitches are standard static conductive to ISO 9563 and can be used in hazardous explosive areas. Certificates delivered on request.

PowerGrip® GT3 is supplied in a silicone-free construction. For paint processes, Gates can supply, on demand, the PowerGrip® GT3 8MGT and 14MGT in a paint and varnish compatible construction. As contamination risks are excluded, it is the ideal belt for paint processes in the automotive industry.



FEATURES

- Technologically advanced compound with fibreglass tensile cord, elastomeric teeth and backing and nylon facing.
- Elastomeric backing protects the cords from environmental pollution and frictional wear.
- Helically wound tensile member gives enormous strength, flex life and elongation resistance.
- Low friction nylon facing protects the tooth surfaces against wear.
- Precision-formed and accurately spaced elastomeric teeth.
- Silicone-free.

BENEFITS

- Substantially increased power ratings: up to 30% more than previous constructions.
- Compact, light-weight and cost-effective drives.
- Improved tooth jump resistance.
- High capacity belt with reduced noise levels.
- No lubrication needed.

POWERGRIP® GT3 SYSTEM SPECIFICATIONS

POWERGRIP® GT3 BELT DIMENSIONS

The three principal dimensions of a PowerGrip® GT3 belt are

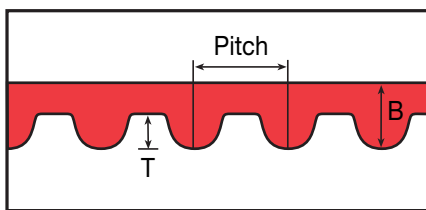
- pitch;
- pitch length;
- width.

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® GT3 belt lies within the tensile member.

Gates PowerGrip® GT3 belts are made in 2 mm, 3 mm, 5 mm, 8 mm and 14 mm pitches.

REFERENCE DIMENSIONS

	Pitch mm	T mm	B mm
2MGT	2.00	0.71	1.52
3MGT	3.00	1.12	2.41
5MGT	5.00	1.92	3.81
8MGT	8.00	3.40	5.60
14MGT	14.00	5.82	9.91



Gates PowerGrip® GT3 belt sizes are listed on pages 13-14. These tables list the pitch lengths in mm and the 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® GT3 ordering code.

Example: PGGT3 1040-8MGT-20
 PGGT3 ... PowerGrip® GT3
 1040 Pitch length (mm)
 8MGT Pitch 8 mm
 20 Belt width (mm)

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.

PowerGrip® GT3 8MGT and 14MGT pitch belts operate on PowerGrip® HTD® pulleys, which are made in 8 mm and 14 mm pitches. PowerGrip® GT3 2MGT, 3MGT and 5MGT pitch belts must be run on pulleys of the same design, so pulleys for these belt pitches are made in 2 mm, 3 mm and 5 mm. Standard pulley diameters for PowerGrip® GT3 belts are listed on page 148. 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 HTD®: P56-14M-40

P56..... Pulley designation (P) and number of grooves (56)

14M Pitch 14 mm

40 Belt width (mm)

Example GT : 3MR-18S-15

3MR Pitch 3 mm

18S..... Number of grooves (18)

15 Belt width (mm)

