



DRIVEN BY POSSIBILITY™

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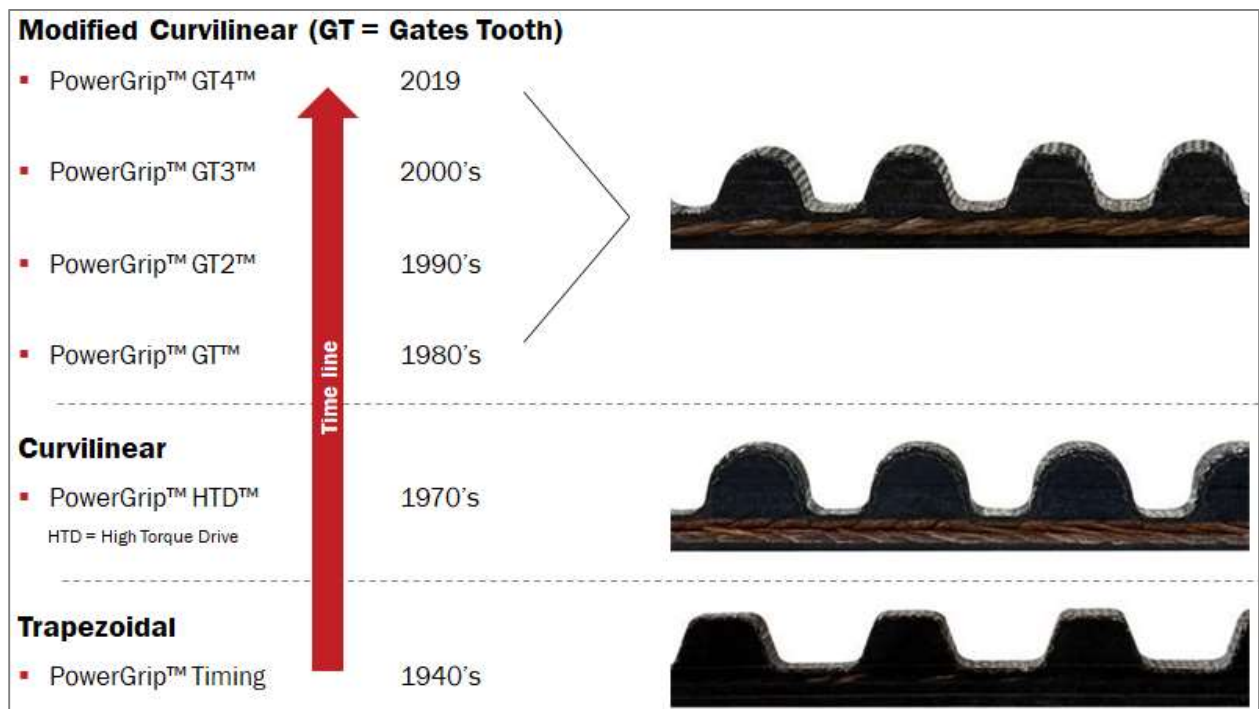


BENEFITS OF MOVING TO MODERN GATES® TECHNOLOGY

The power transmission industry has changed significantly since the original Gates® trapezoidal pitch products in the 1940s. Advancements in material science, belt construction and tooth profiles have facilitated higher performing industrial drives which have proven to be the ideal solutions for more customers in a higher variety of applications. Gates® has been at the forefront of innovation at each step along the way.

Our current product line is no different. The new Gates® PowerGrip™ GT4™ delivers the highest power-carrying capacity of any belt in its class. Improved power capacity allows for narrower drives which ultimately lowers upfront costs as well as replacement costs throughout the life of the drive.

Utilizing all new advanced materials, Gates® also designed a belt with increased chemical resistance and larger temperature range capability. PowerGrip™ GT4™ has been specifically developed to excel in a wider variety of applications.



While PowerGrip™ GT4™ & Poly Chain® belts have a myriad of features that drive significant advantages for our customers, the remainder of this paper will specifically concentrate on upfront cost benefits of more modern solutions. That said, the benefits for many other features can be quantified depending on the customer and application type. Please contact your Gates® sales team for more information.



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How to Reduce Costs with PowerGrip™ GT4™ and Poly Chain® solutions

We used the powerful Gates® DesignFlex Pro software to simulate the below sample drives. The intent of the investigation is to design drives using multiple belt-types that are capable of withstanding roughly the same rated load (while staying within the below parameters).

DRIVE CONFIGURATION			
Description		Study #1	Study #2
Motor	Power	5 HP	25 HP
	Nominal RPM	1,750	1,750
Gearbox	Gear Ratio	2:1	5:1
	Center-to-Center Distance	2'	4'
Drive	Speed Ratio	2:1	2:1
	Max. Sprocket Pitch Dia. (DriveN)	7"	15"
	Poly Chain®/GT4™	1.6	1.6
Service Factor *	Trapezoidal/HTD	2.0	2.0

* With the launch of GT4™, Gates® has conducted the most comprehensive ratings development plan in our history in order to provide our customers with the most accurate predictive tools in the industry. This provides a higher level of confidence in the predictive model which in turn drives a lower service factor. For more detailed information, please refer to the "[Gates® GT4™ Power Ratings Advantage White Paper](#)".

Case Study #1 : Light-to-Medium Duty Indoor Application

DRIVE SOLUTION				PRICING ▪			
Type	Belt (Pitch x Teeth x Width)	Driver _R # of Teeth	Drive _N # of Teeth	Belt	Sprocket	Total	Δ% (GT4™)
Trap	H x 126 x 76.2mm	20	40	\$ 178.09	\$ 509.36	\$ 687.45	+117%
HTD	8M x 200 x 50mm	32	64	\$ 194.54	\$ 360.56	\$ 555.10	+75%
GT4™	8MGT x 189 x 20mm	26	53	\$ 76.46	\$ 240.82	\$ 317.28	-
Poly Chain®	8MGT x 200 x 12mm	25	50	\$ 66.67	\$ 256.81	\$ 323.48	+2%



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Outcome : Gates® GT4™ is typically slightly lower cost for an 8mm pitch drive, whereas Poly Chain® will likely be a full width narrower. Both solutions will have an extremely quick payback vs. HTD and Trapezoidal pitch drives. And, as GT4™ & Poly Chain® replacement belts are likely 2+ times cheaper, you will save a significant amount of money over the life of the drive.

Case Study #2 : Heavy Duty Outdoor Application

DRIVE SOLUTION				PRICING ▪			
Type	Belt (Pitch x Teeth x Width)	DriverR # of Teeth	DriveN # of Teeth	Belt	Sprocket	Total	Δ% (Poly Chain®)
Trap	XXH x 128 x 127mm	30	60 •	\$1,514.40	\$4,495.59	\$6,009.99	+341%
HTD	14M x 225 x 115mm	40	80	\$1,572.35	\$1,113.17	\$2,685.52	+97%
GT4™	14MGT x 225 x 85mm	34	68	\$1,158.38	\$ 711.30	\$1,869.68	+37%
Poly Chain®	14MGT x 224 x 37mm	28	56	\$ 742.25	\$ 621.68	\$1,363.93	-

- “Buy it now” pricing on a popular US website. Price is subject to change regionally as well as at higher volumes. Please consult your local sales or application engineering teams for more info on how the costs for your specific drive can be lowered.
- Larger than max sprocket restriction; smaller sprockets will not allow drive to meet min requirements

Outcome : The heavy duty, high performance Gates® Poly Chain® product will likely be a slightly lower cost, narrower solution than GT4™ when designing 14mm drives. However, it is important to note that a complete Poly Chain® drive is cheaper than a standalone HTD or Trapezoidal pitch belt! Changing to Poly Chain® or GT4™ saves money up front as well as in the future.

Gates® understands that changing your drives to new technology takes time and effort. However, as you can see from the above, this type of technology update drives an extremely quick ROI as well as significant long-term business value. Again, please contact your local sales or application engineering teams today for more information on how we can lower the costs for your specific drive.