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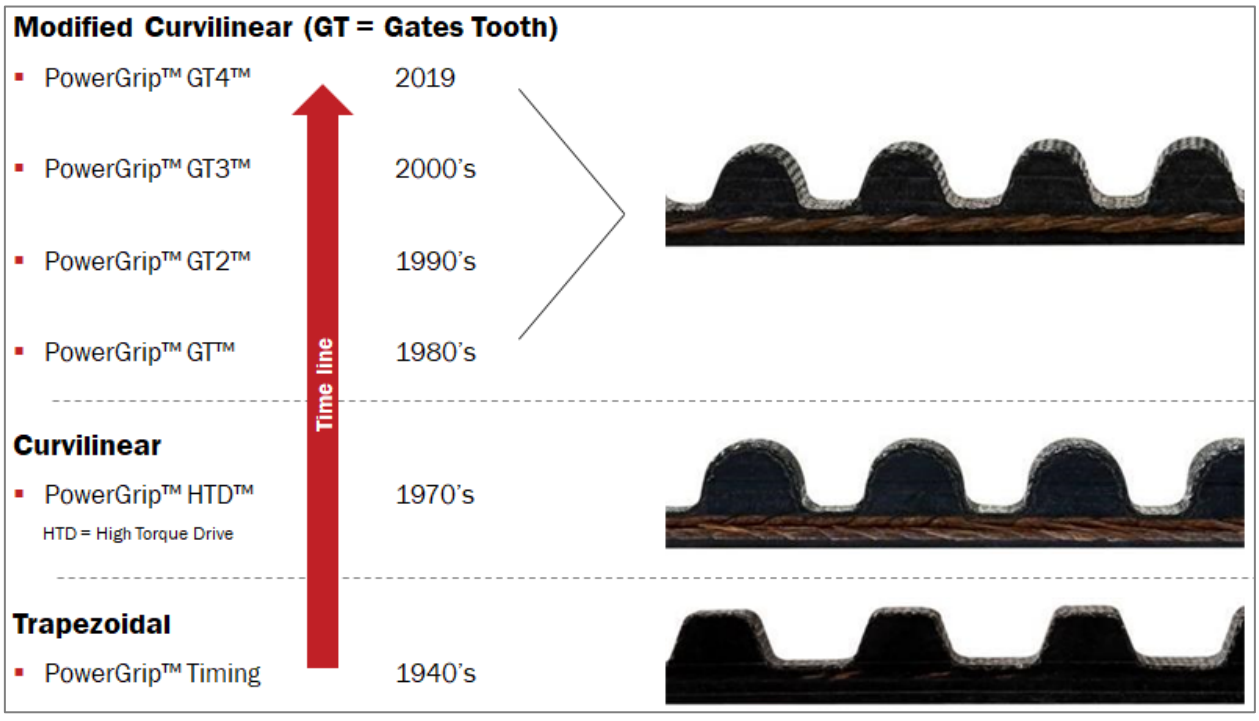
BENEFITS OF MOVING TO MODERN GATES® TECHNOLOGY

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.

Utilising 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
Drive	Center-to-Center Distance	2’	4’
	Speed Ratio	2:1	2:1
	Max. Sprocket Pitch Dia. (DriveN)	7”	15”
Service Factor *	Poly Chain®/GT4™	1.6	1.6
	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)**	**DriverR # of Teeth**	**DriveN # 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.