

GATES INDUSTRIAL CORPORATION IPT Global Product Line Management 330 Inverness Dr. S. Englewood, CO 80112 USA GATES.COM



## Gates<sup>®</sup> GT4<sup>™</sup> Power Ratings Advantage

## GT4<sup>™</sup> Predictive Modeling Advantage

It's in our DNA to be continually improving, whether that's improving the performance of our belts and hoses, or in how we convey information to customers. This is also true with how we develop our belt ratings which are a crucial tool for engineers and technicians in the proper design of an industrial drive.

With the launch of GT4<sup>™</sup> Gates<sup>®</sup> 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. We've combined our deep technical knowledge and the latest developments in the fields of elastomeric composite failure mechanics, statistics, and test development in order to bring this new level of predictive accuracy to our customers.

For some manufacturers, belt ratings are a marketing tool to help make the sale but to Gates<sup>®</sup> they are a science. This is why we went through the costly and time consuming process of developing our belt ratings for GT4<sup>™</sup> from scratch rather than just multiplying old ratings by a fixed percentage or copying the HP tables from a competitor the way some companies do.

Anytime a change is made to an existing predictive model there will be areas where the old model and the new model differ. This isn't to say that the old model was bad or wrong just that it is less accurate than the new one.

With this in mind there will be some drive designs where our predictive model for  $GT4^{TM}$  will provide a HP rating below that of the previous  $GT3^{TM}$  generation. This does not mean that  $GT4^{TM}$  is less capable than  $GT3^{TM}$ . In fact, the opposite is true. <u>GT4^{TM} has been proven to be superior to  $GT3^{TM}$  at all conditions throughout our exhaustive testing process. A more accurate method of predicting and modeling the belts performance results in a higher level of confidence in the  $GT4^{TM}$  product.</u>

Again, if you've had a drive in the past that used GT3<sup>™</sup> without any issues then you can feel confident that GT4<sup>™</sup> will also prove successful as all of our test data shows GT4<sup>™</sup> to consistently outperform GT3<sup>™</sup> in every drive configuration.



\* Actual bench test results at certain conditions. Exact improvement % will vary depending on drive design, conditions, etc. Please contact Gates<sup>®</sup> sales or application engineering team if you have any questions.



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## **Truth in Testing : Power Capacity vs. Actual Performance**

<u>POWER RATINGS, DEFINED.</u> Power ratings are the traditional method used by belt manufacturers to communicate the capability of their belts in varying conditions. Utilizing known information — RPM, sprocket diameters and belt length — a drive designer can use power rating tables and manufacturer-specified calculations to determine the required belt width to properly transfer power necessary for their application. However, there are no factors included in this process to determine the lifetime expectancy the manufacturer expects for a given rating.

<u>THE UGLY TRUTH, REVEALED.</u> The power transmission industry has no standards in place for manufacturers to follow when developing power rating tables. This has resulted in a wide range of unstandardized methods used by manufacturers over time. With no industry regulations or standardizations in place, there is no guarantee that manufacturer-driven power rating results are factual or data based. i.e. A very lightweight belt is rated to carry 100HP, despite it not being capable of doing so for any meaningful length of time. Given the inconsistencies described above, the comparison of multiple power rating tables (including any power rating software outputs used) are unreliable and should not be used to determine relative performance across competitive belt lines.



## GT4<sup>™</sup> vs. the Competition

The only way to know the true power carrying capacity is to test various belts under identical conditions and determine their ability to carry a given load for a certain amount of time. If a competitor of Gates® tries to make the claim that their belt outperforms ours based on their published HP tables then we encourage you to perform head-to-head testing of your own!



We brought in many of the primary competitors within the same class for apples-to-apples testing. We are confident that GT4<sup>™</sup> will outperform any of these competitors. When combined with the class leading, heavy duty Poly Chain products, Gates<sup>®</sup> possesses the largest breadth of high performing products in the market.



