



Gates® Power Ratings Advantage

Predictive Modeling Advantage

It's in our DNA to continually improve, whether that's improving the performance of our belts and hoses or in how we convey information to customers. This includes developing our belt ratings which are crucial for engineers and technicians designing industrial drives.

Gates[®] has conducted the most comprehensive ratings development plans in our history on some of our key products to provide our customers with the most accurate predictive tools in the industry, and we'll continue to do so on select exiting products and new ones going forward. We've combined our deep technical knowledge and the latest developments in elastomeric composite failure mechanics, statistics, and test development 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[®] they are a science. This is why we continue to go through the costly and time-consuming process of developing data-backed belt ratings for each product rather than multiplying old values by a fixed percentage or copying the HP tables from a competitor.

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 latest predictive model will provide a HP rating below that of the previous model calculations. This does not mean that our product is any less capable than it was in the past. A more accurate method of predicting and modeling the belts' performance results in a higher level of confidence across Gates® product lines.

If you've had a drive in the past that used Gates[®] products without any issues, you can feel confident that success will continue with those same products, even the use of our if our new predictive tools recommend a wider belt.





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. Utilising known information – RPM, sprocket diameters, belt length, etc. – 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 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 unstandardised methods. With no industry regulations or standardisations in place, there is no guarantee that manufacturer-driven power rating results are comparable, factual, or data-based. A hypothetical 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, comparisons of multiple manufacturers' power rating tables (including power rating software outputs) are unreliable and should not be used to determine relative performance across competitive belt lines.







Gates[®] Design Power[™]

The only way to know a belt's true power carrying capacity is to test samples under multiple conditions and determine their ability to carry a given load for a certain amount of time. We have spent the time and resources to complete this testing to provide the best, most accurate product ratings and modeling available. Our continued commitment to this testing has significantly increased the accuracy and precision of our models.



These models are located within Gates[®] Design Power[™] software. Gates[®] Design Power[™] is a new proprietary software platform that offers multiple digital design tools to support the engineering and specification of belt-drive systems. These tools and models make the process easier and more accurate than ever before.

Learn more about Gates[®] Design Power[™] software <u>HERE</u>.