



GatesFacts™ Technical Information Library
Gates Compass™ Power Transmission CD-ROM version 1.2



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Denver, Colorado USA

BANDED VS. BANDLESS GRIPPING POWER

On occasion users have made various claims as to the "gripping power", or coefficient of friction, of a banded V-belt versus a bandless V-belt in a sheave groove. While it may be reasonably assumed that a brand new bandless belt may exhibit a greater coefficient of friction than a banded belt, this characteristic is relatively short lived. Both lab and field testing has confirmed that, dependent on drive load, the initial difference will disappear in hours or days of operation. The more heavily loaded the belts, the quicker this will occur. The friction and wedging, along with possible environmental impact (abrasives, etc.), will quickly polish the belt sidewalls of either construction. On severely misaligned drives, a new bandless belt may be more likely to turnover due to its higher friction characteristics. Shock or impulse loading or worn sheave grooves would help facilitate this belt turnover.