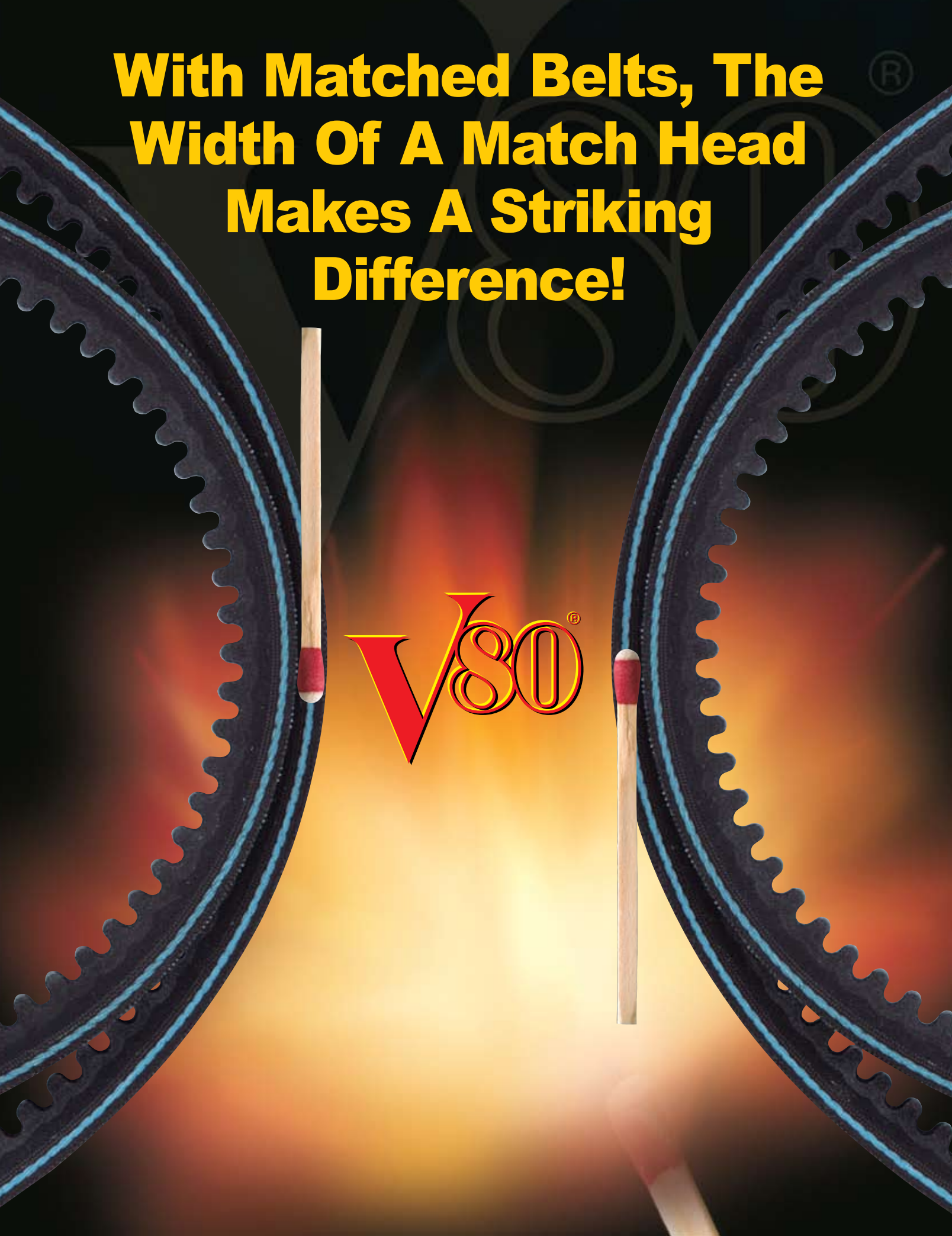


**With Matched Belts, The
Width Of A Match Head
Makes A Striking
Difference!**



V80®



The V80 System – Trusted for More Than 20 Years

When it comes to choosing matched belts there's little room for error. For optimum performance, RMA (Rubber Manufacturers Association) specifications require matched belts up to 63" be within .15" in length. That's the width of a typical match head.

This tiny fraction of an inch can make or break a belt drive. Matched belts that don't meet RMA standards won't evenly distribute the load, which can result in uneven belt and sheave wear, leading to premature failure.

To meet RMA requirements, manufacturers originally used complex numbering systems to label matched belts. Unfortunately, these systems often meant belt users had to search through massive inventories to find the belts they needed.

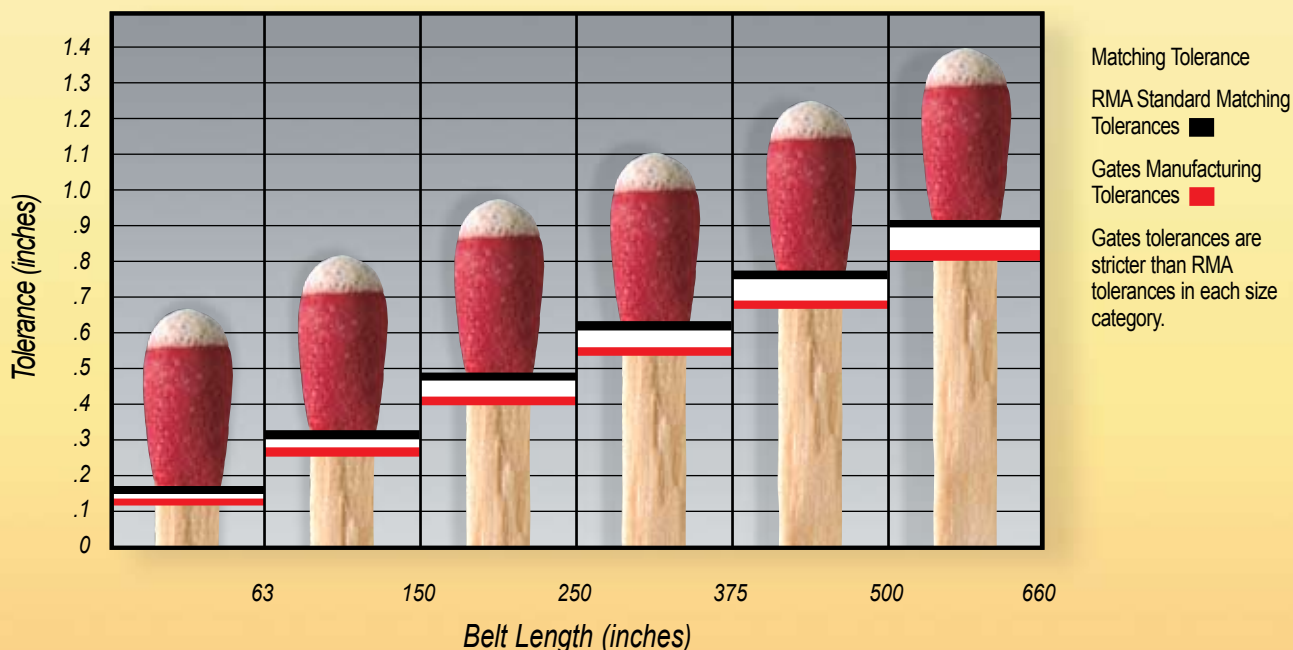
Gates eliminated this cumbersome process in 1980 when it introduced the V80[®] belt matching system.

The V80 belt matching system from Gates makes it easy to find matched belts. That's because all V80 belts meet and exceed RMA tolerance requirements.

To ensure consistent belt lengths, Gates uses rigorous statistical process control (SPC) methods throughout the manufacturing process. These SPC methods, along with our belt manufacturing expertise, result in belts that exceed RMA specifications in each size category.

All Gates V80 belts are manufactured within finite length tolerances. These tight tolerances mean all V80 belts will match and perform with all other V80 belts of the same size and type.

This chart shows the differences between Gates and RMA tolerances for matched belts of various lengths.



The "Catenary Effect" And Belt Performance

On some drives V80 belts may appear to hang unevenly, or "sag," when first installed. This is normal. In fact, it's common for belts that vary in length by only hundredths of an inch to create noticeable differences in deflection (see chart below), especially on drives with longer span lengths.

Extensive lab and field tests show that this sag, called the "catenary effect," has virtually no effect on either drive performance or the ability of the belts to equally carry the load.

A catenary is a curve made by a cord, belt, chain, etc. of uniform weight suspended between two points. This is comparable to the free span length between two sheaves in a belt drive. This sag is temporary and will disappear after a short run-in period and reapplication of the recommended tension.

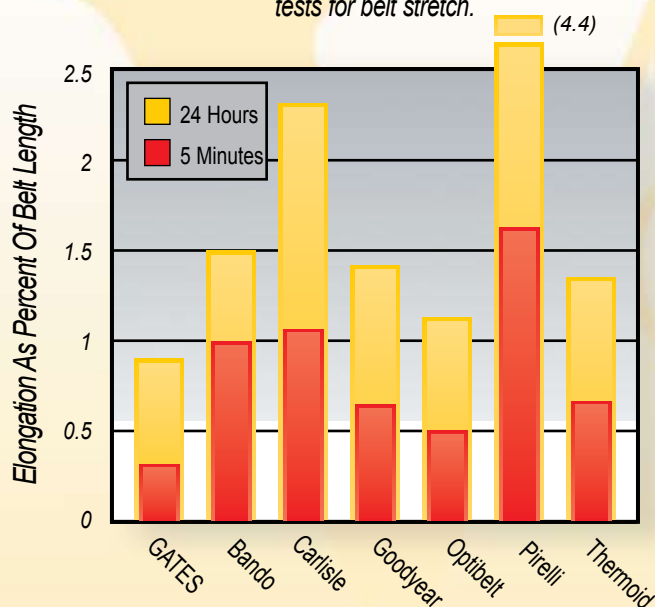
Belt	Gates Length Tolerance (in.) (Approx.)	RMA Length Tolerance (in.)	Center Distance (in.)	Sag (in.)
3VX500	0.14	0.15	21.50	1.07
3VX750	0.28	0.30	32.80	1.86
5VX1600	0.42	0.45	67.40	3.27
5VX2500	0.42	0.45	105.00	4.07
5V3350	0.55	0.60	142.40	5.43
8V4000	0.70	0.75	179.30	6.87

Note: These calculations use a 1:1 speed ratio and are approximate.





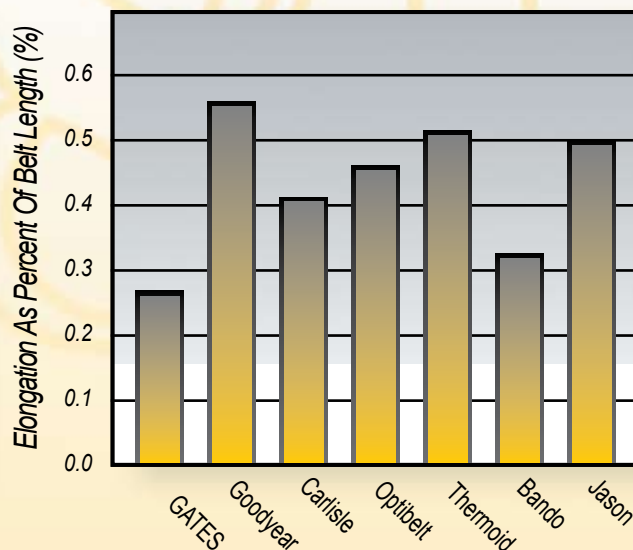
The chart below illustrates the superiority of Gates V80® belts versus competitive belts on tests for belt stretch.



Dynamic tests conducted on lab dynamometers using Gates Standard B-93 test designed to evaluate performance of industry standard "B" section belts.

Performance Comparisons

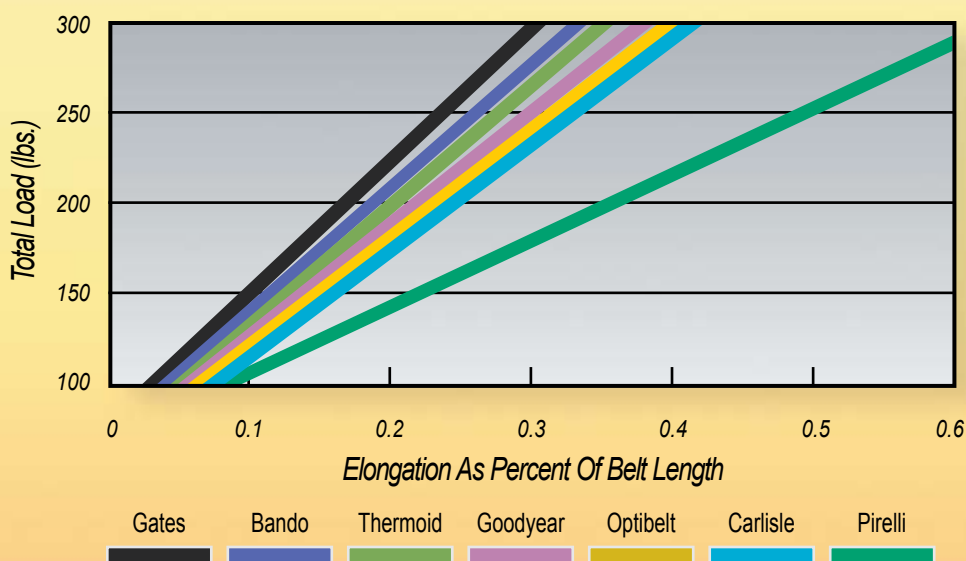
Belt Stretch



Less Stretch For Greater Savings

To minimize stretching, all Gates V80 belts are reinforced with low-stretch, high-modulus polyester tensile cords. Less belt stretch means reduced maintenance and greater savings.

Other belts use low- to medium-modulus tensile fibers. These belts, although they may look the same on a drive, will stretch throughout the life of the belt and result in frequent retensioning and/or replacement.



All tests conducted on an Instron Universal Testing Machine to measure tensile elongation or belt modulus.

Gates V80® Belts – A Perfect Match Every Time



All Gates belts that carry the V80 logo will match all other V80 belts of the same type and size.

Belts included in the V80 system include:

Hi-Power® – A, B, C, D, E

Super HC® – 3VX, 5VX, 5V, and 8V

Tri-Power® – AX, BX, CX

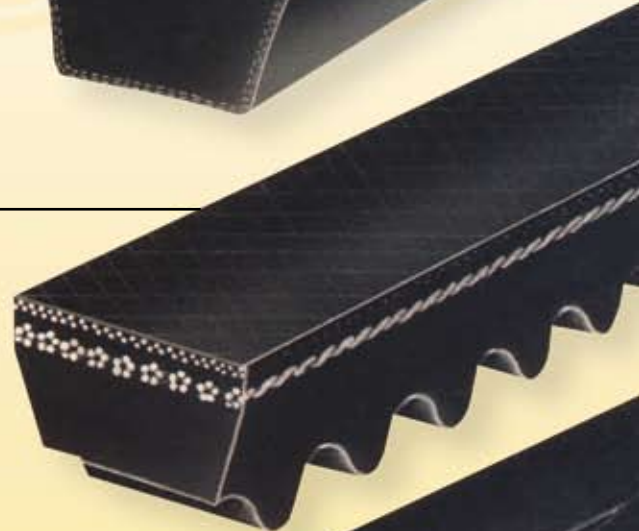
Hi-Power® II Belts

Hi-Power II belts feature “Gates Curves” which distribute wear uniformly and provide proper belt support for improved belt life. Flex-bonded cords and Flex-Weave® covers make them the number one choice for new applications or replacement on heavy-duty conventional V-belt drives. Hi-Power II belts resist oil, heat, ozone, wear and aging. They also meet RMA static-conductivity standards.



Tri-Power® Belts

Trouble-free Tri-Power belts provide superior performance in heavy-duty drive applications that require small pulley diameters. A special notch design, new HMLS flex-bonded tensile cords and precision machined sidewalls help Tri-Power belts withstand flex fatigue and shock loads for even sheave wedging action. Tri-Power belts resist oil, heat, ozone, weather and aging. They also meet RMA static-conductivity standards.

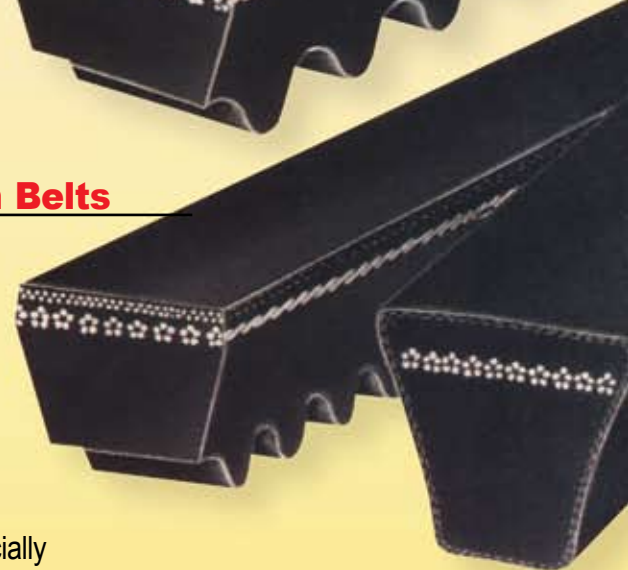


Super HC® and Super HC® Molded-Notch Belts

Lightweight, competitively priced Super HC and Super HC Molded-Notch belts are designed for use in applications where space is at a premium. They're ideal to transmit high horsepower on high-speed applications and wherever high-speed ratios or small sheave diameters are required. Super HC belts feature flex-bonded cords and Flex-Weave covers to enhance load-carrying capability.

Super HC Molded-Notch belts offer additional support with specially designed notches and improved lateral rigidity. Precision-machined sidewalls permit better product uniformity and consistency.

Both belts resist oil, heat, ozone, sunlight, weather and aging. They also meet RMA standards for static conductivity.



Predator® Belts

Predator belts are built with aramid tensile cords for extraordinary strength and durability in harsh, shock-loaded applications. Always use the same match number for applications requiring matched sets.



V80[®]



Gates Corporation

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