

POLY CHAIN® CARBON™ VOLT®
UNMATCHED PERFORMANCE WITH ANTISTATIC EXCELLENCE



WHAT IS ATEX?

ATEX (from Atmosphères Explosibles) refers to the **European Regulatory Framework for the manufacture, installation and use of equipment in explosive atmospheres**. As of July 2003, organisations in the EU must follow the ATEX directives to protect employees in explosive risk areas:

- › ATEX 95 Equipment Directive 94/9/EC: minimum safety requirements for equipment and protective systems intended for use in potentially explosive atmospheres. Will be replaced by Directive 2014/34/EU as of 20 April 2016.
- › ATEX 137 Worker Protection Directive 99/92/EC: minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.



THE ALL-NEW POLY CHAIN® CARBON™ VOLT®



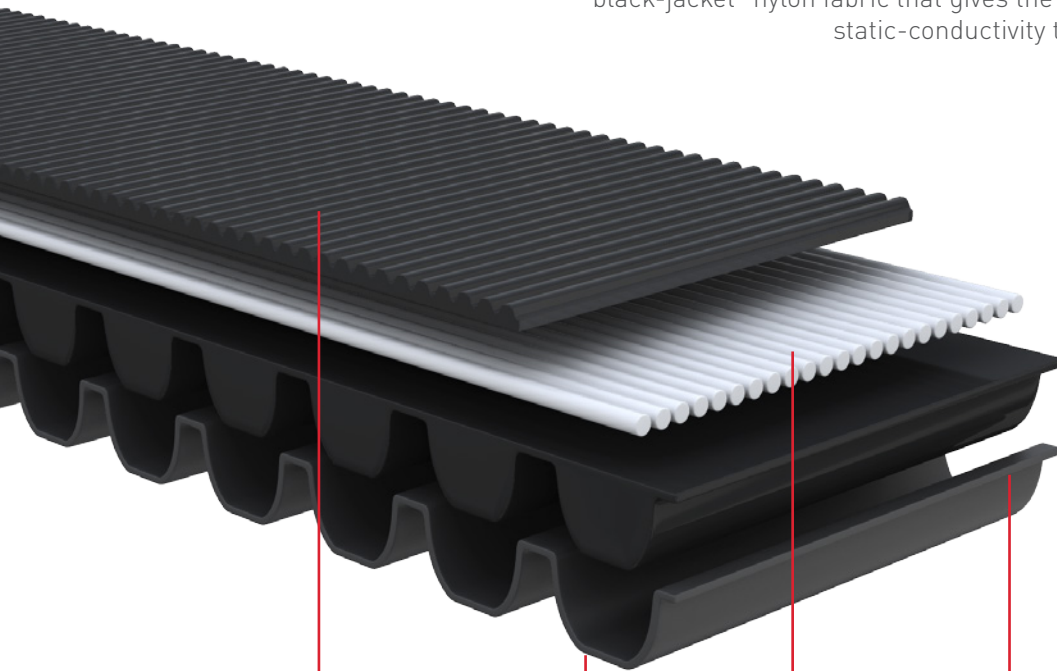
Antistatic power transmission belts are a must in ATEX environments. To ensure the **highest safety standards**, their capacity to safely dissipate static electricity should meet the required levels over the lifetime of the belt - and not only when new. The Poly Chain® Carbon™ Volt® belt is **the only belt in the market that meets the ISO 9563 standard over the complete lifespan of the belt**. Its patented static-conductive jacket construction transfers static electricity safely to carbon tensile cords, away from the driven side of the application - making it your safest and strongest option for applications in ATEX environments:

- › gas industry
- › petrochemical industry
- › automotive painting
- › grain storage
- › filling lines
- › linear labeling lines
- › power processing
- › dairy and sugar factories
- › compound feed companies
- › paper processing
- › furniture factories
- › plastics processing

BELT CONSTRUCTION + BENEFITS

MAXIMUM SAFETY AND POWER – FOR YEARS

Strength, flexibility, durability and reliability are all vital qualities in the field of power transmission. With Poly Chain® Carbon™ Volt® belts, you can be confident that all these are guaranteed. The belt consists of a tough, lightweight polyurethane compound with carbon tensile cord. The carbon fibre reinforcement provides **high strength and length stability with improved shock load and fatigue resistance, while reducing stretch and increasing flexibility**. The new facing covering the teeth is a “black-jacket” nylon fabric that gives the necessary static-conductivity to the belt.



POLYURETHANE CONSTRUCTION

CARBON TENSILE CORDS

PATENTED CURVILINEAR TOOTH PROFILE

PATENTED ANTISTATIC BLACK JACKET CONSTRUCTION

OUTLAST AND OUTPERFORM THE COMPETITION WITH GATES

SAFETY

- › Maintains static conductivity over belt lifetime
- › Equals low risk and total peace of mind

POWER & PERFORMANCE

- › Precise drive solutions with unparalleled power capacity
- › Resistant to moisture, chemicals, pollutants and abrasion
- › Suitable for extreme temperatures (from -54°C to +85°C)
- › Up to 55% more low-speed capacity than Poly Chain® GT and 30% more than Poly Chain® GT2

CONVENIENCE

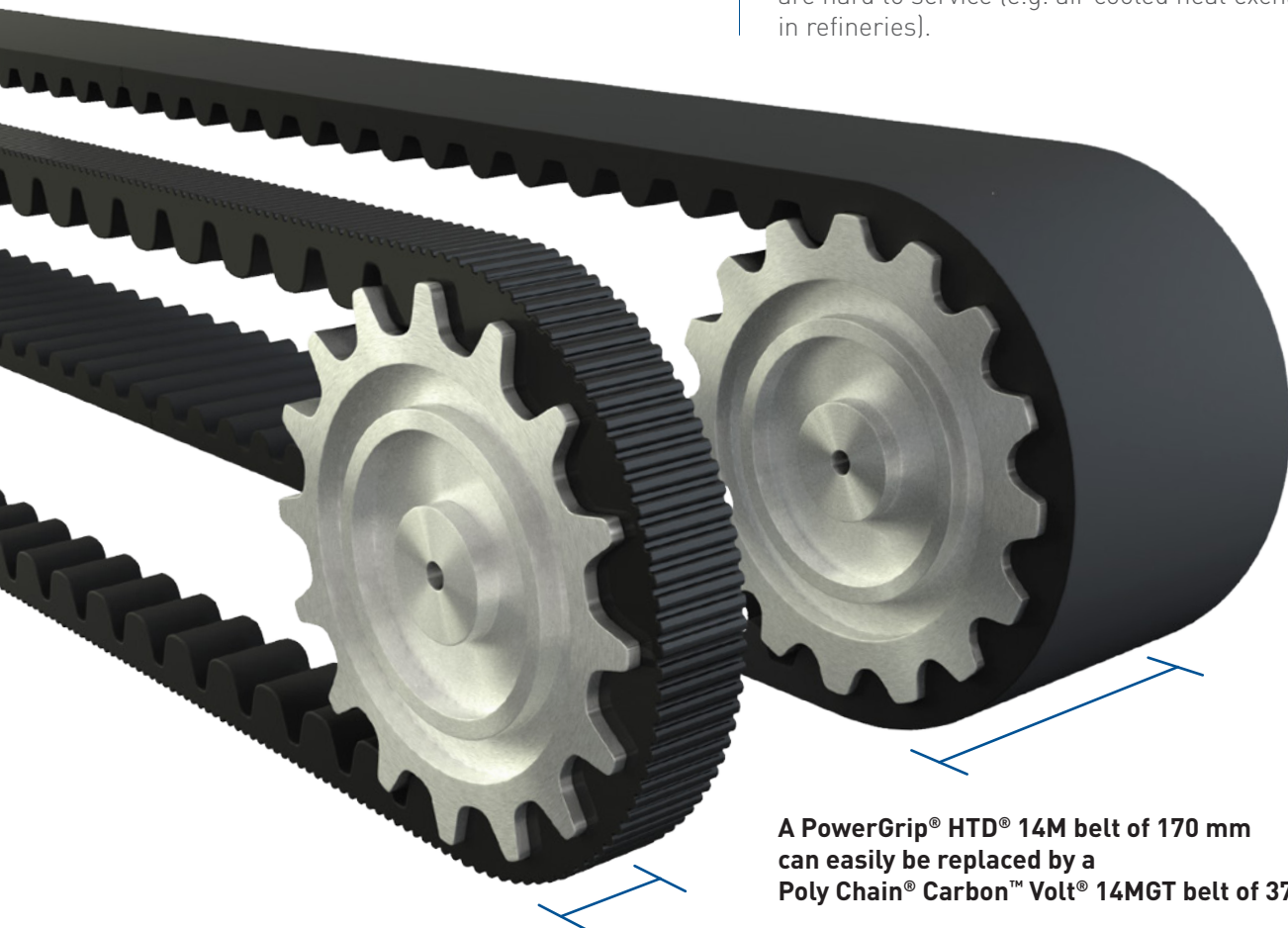
- › Eco-friendly: clean, quiet, maintenance-free, energy-friendly, and cost-saving
- › Self-cleaning feature in combination with Poly Chain® GT sprockets
- › Fast drive conversion payback
- › Expanded size range over Poly Chain® GT2 range
- › Full stock range, deliverable immediately

COST SAVING OPTIONS

DESIGNED TO SAVE ON ENERGY COSTS AND MAINTENANCE EXPENSE

Through their design and inherent characteristics, Poly Chain® Carbon™ Volt® belts offer **greater power capacity, compactness and increased flexibility** than any timing belt before. The improved capacity of the belt makes it possible to pack a lot of power into a small space: smaller drives, a shorter shaft and less total weight help to reduce the energy costs.

Another factor to consider are the savings in maintenance costs Volt® belts offer. The considerably longer lifetime reduces the total number of belt replacements over the years, **lowering the overall belt acquisition cost**. The **labour cost diminishes drastically** as well, especially for applications that are hard to service (e.g. air cooled heat exchangers in refineries).



A PowerGrip® HTD® 14M belt of 170 mm
can easily be replaced by a
Poly Chain® Carbon™ Volt® 14MGT belt of 37 mm.

In short, the conversion to Poly Chain® Carbon™ Volt® belts **helps to reduce downtime and to increase machine output and line productivity**. As Volt® belt drives enable savings across a variety of applications in dozens of industries, chances are that one of your applications is an excellent choice for conversion.



YOUR COMPETITIVE ADVANTAGE

Outlast and outperform the competition with Gates. Give yourself a competitive advantage by designing-in the Gates Poly Chain® system in your next power transmission application. Combine the premium Volt® belts with genuine Gates Poly Chain® GT sprockets, idlers and tensioners, for a lightweight, long-lasting and maintenance-free system.

OUR DRIVE DESIGN SUPPORT

Gates Design Flex® Pro™ software is a professional grade design tool which helps you to create multiple reliable belt drive designs in seconds, based on the design parameters you enter. Gates Product Application Engineers are also happy to lend you a hand. From routine questions to complex “life-in-hours” analyses, we can help match your design needs precisely, for the most cost-effective drive solution.

THEY'VE INSTALLED IT

SUCCESS STORY - AIR COOLED HEAT EXCHANGERS IN PETROCHEMICAL COMPANY

You don't have to take our word for it, our customers experience the superiority of Volt® belts every day. By converting several air cooled heat exchangers - notorious for their shock loads - from premium rubber belts to Gates Poly Chain® Volt® belts, a customer in the petrochemical sector improved the drives' lifetime on average by four times. Our belts not only improve your safety, but your productivity as well!

SYSTEM APPROACH

As ATEX regulations continuously evolve and safety becomes more and more vital, we believe it is important to offer you a complete system solution suited to function in potentially explosive atmospheres.

POLY CHAIN® GT SPROCKETS



Gates Poly Chain® GT sprockets are statically balanced to make sure **your entire belt drive is as safe as possible**. They are manufactured, specified and tested to perfectly support the full power capabilities of the Poly Chain® Carbon™ Volt® belt. Belts and sprockets used together **get the best out of your belt drive: maximal performance, prolonged antistatic properties and optimal life.**

- › Precisely manufactured and statically balanced to ISO 1940 (1973) to class G16
- › Exact sprocket design produces positive, press fit to shaft
- › Smaller, narrower sprockets save shaft space, keep the load closer to the bearing and extend life of reducer
- › Keep overhung load below manufacturers recommendation
- › Specifically designed to transmit power with only the corresponding Gates Poly Chain® belt product line

DRAFTGUARD® ANTI-ROTATION DEVICE



Fan drives can spin backwards when they are turned off but subjected to air movement across fan blades, also known as back-drafting or wind-milling. Always looking for new ways to improve safety in the work environment, Gates designed the Draftguard® anti-rotation device to prevent drives from rotating in the reverse direction. Not only essential to protect technicians and equipment during maintenance operations, **the device also protects the entire system during start-up against extreme shock loads**, which helps to avoid unnecessary wear of the motor components.

- › Prevents back-drafting of fans
- › Eliminates hard starts during wind-milling
- › Avoids damage to drive during start up
- › Protects technicians from injury during maintenance

SIZE LISTINGS

8MGT		
Description	Pitch length mm	Number of teeth
8MGTV-640	640	80
8MGTV-720	720	90
8MGTV-800	800	100
8MGTV-896	896	112
8MGTV-960	960	120
8MGTV-1000	1000	125
8MGTV-1040	1040	130
8MGTV-1120	1120	140
8MGTV-1200	1200	150
8MGTV-1224	1224	153
8MGTV-1280	1280	160
8MGTV-1440	1440	180
8MGTV-1600	1600	200
8MGTV-1760	1760	220
8MGTV-1792	1792	224
8MGTV-2000	2000	250
8MGTV-2200	2200	275
8MGTV-2240	2240	280
8MGTV-2400	2400	300
8MGTV-2520	2520	315
8MGTV-2600	2600	325
8MGTV-2800	2800	350
8MGTV-2840	2840	355
8MGTV-3048	3048	381
8MGTV-3200	3200	400
8MGTV-3280	3280	410
8MGTV-3600	3600	450
8MGTV-4000	4000	500
8MGTV-4400	4400	550
8MGTV-4480	4480	560

Available in widths of 12 mm, 21 mm, 36 mm and 62 mm.

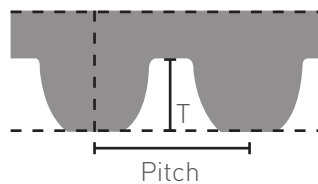
14MGT		
Description	Pitch length mm	Number of teeth
14MGTV-994	994	71
14MGTV-1120	1120	80
14MGTV-1190	1190	85
14MGTV-1260	1260	90
14MGTV-1400	1400	100
14MGTV-1568	1568	112
14MGTV-1610	1610	115
14MGTV-1750	1750	125
14MGTV-1890	1890	135
14MGTV-1960	1960	140
14MGTV-2100	2100	150
14MGTV-2240	2240	160
14MGTV-2310	2310	165
14MGTV-2380	2380	170
14MGTV-2450	2450	175
14MGTV-2520	2520	180
14MGTV-2590	2590	185
14MGTV-2660	2660	190
14MGTV-2730	2730	195
14MGTV-2800	2800	200
14MGTV-2828	2828	202
14MGTV-3136	3136	224
14MGTV-3304	3304	236
14MGTV-3360	3360	240
14MGTV-3500	3500	250
14MGTV-3850	3850	275
14MGTV-3920	3920	280
14MGTV-4326	4326	309
14MGTV-4410	4410	315

Available in widths of 20 mm, 37 mm, 68 mm, 90 mm and 125 mm.

	Pitch mm	T mm	B mm
8MGT	8.0	3.4	5.9
14MGT	14.0	6.0	10.2

All dimensions are available from stock.

Also available on request in non-standard widths and PowerPainT™ construction.





POLY CHAIN® CARBON™ VOLT®



**THE POWER YOU WANT
THE SAFETY YOU NEVER HAD**

- › Unique and patented static conductive construction meets ISO 9563 throughout the lifetime of the belt
- › ATEX (directive) compliant: suitable for explosive environments
- › Precise drive solutions with unparalleled power capacity
- › Patented, high fatigue-resisting carbon tensile cord design
- › Especially suitable for high torque, low speed drives
- › Full stock range, deliverable immediately

Gates.com/europe/industrial

Your distributor:



Carbon Volt in stock
Buy Online at
www.acorn-ind.co.uk

E2/20200



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