

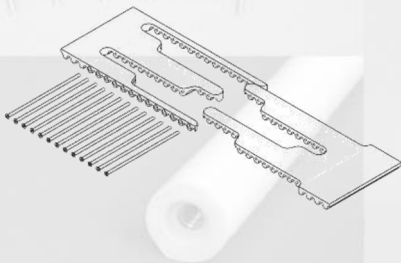


# POLY CHAIN® CARBON™ VOLT™ ERO Joint® Technical Data

The power of Gates combined with the know-how of Tanals. Poly Chain® Carbon™ Volt™ outstanding mechanical performance combined to ERO Joint® provides **the only existing transmission belt with mechanical assembly**. It allows to repair any installation initially fitted with HTD belts (8M and 14M).  
**A substantial saving of time / reduction of stop in production lines.**

## ERO Joint® Principle

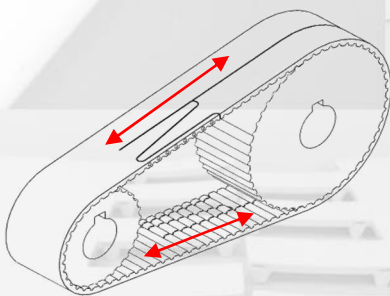
An open belt Poly Chain® Carbon™ Volt™ with fingers to junction, one male side, one female side, with transverse screws (or pins) to assemble both sides together.



Optimization of the cutting shape in order to increase the breaking strength and the fatigue capacity.

## ERO Joint® Ultimate Principle (patented)

The only transmission belt with mechanical assembly whose performances equal those of all other endless belts on the market. **A lasting solution able to replace any rubber belt.**  
A belt, added of 2 half junctions with always ½ continuous tight side.

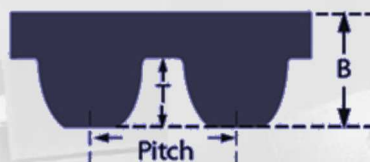


Poly Chain® Carbon™ Volt™ ERO Joint® and ERO Joint® Ultimate can be fitted on HTD pulleys in case of breakdown.

## Fabrication Data

Pitch available	8M and 14M
Standard fabrication	Gates lightweight polyurethane compound – Antistatic black-jacket nylon fabric ISO 9563
Cables	Gates Carbon tensile cord
Fabrication options	Poly Chain® GT Carbon™, Poly Chain® GT Carbon™ High Temperature (on request and under availability)
Cleaning option	Silicone Free

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



	8MGT ERO Joint®	8MGT ERO Joint® Ultimate	14MGT ERO Joint®	14MGT ERO Joint® Ultimate
Min. width (mm)	12	20	20	30
Max. width (mm)	50	100	100	200
Min. length (mm)	640	840	994	994
Max. length (mm)	4480	4480	4410	4410
Special length	30 meters max. for 12, 21 or 36 mm width	30 meters max. for 24, 42 or 72 mm width	30 meters max. for 20 or 37 mm width	30 meters max. for 40 or 74 mm width
Using screws (mm)	M2/ width max.30	M2/ width max.60	M3/ width max.50	M3/ width max.100
Using pin data (mm)	M2/ width max.50	M2/ width max.100	M3/ width max.100	M3/ width max.200

Screws and pins are in Stainless Steel material – Standard lengths are following the standard Poly Chain® Carbon™ Volt™ sleeves dimensions – Special lengths are following the standard longlength (LL) Poly Chain® Carbon™ Volt™ fabrication.

## Transmission and Operating Data Comparison

C(Nm) transmitted at 100 RPM - 34 teeth pulley					
	Powergrip® HTD	Powergrip® GT3	Poly Chain® Carbon™ Volt™	Poly Chain® Carbon™ Volt™ ERO Joint®	Poly Chain® Carbon™ Volt™ ERO Joint® Ultimate
1760 8M 30	71	161	305	91	153
1760 8M 50	123	280	509	153	254
1190 14M 55	269	557	1440	432	720

C(Nm) transmitted at 1500 RPM - 34 teeth pulley					
	Powergrip® HTD	Powergrip® GT3	Poly Chain® Carbon™ Volt™	Poly Chain® Carbon™ Volt™ ERO Joint®	Poly Chain® Carbon™ Volt™ ERO Joint® Ultimate
1760 8M 30	57	131	223	70	112
1760 8M 50	99	228	372	112	186
1190 14M 55	169	395	785	235	392

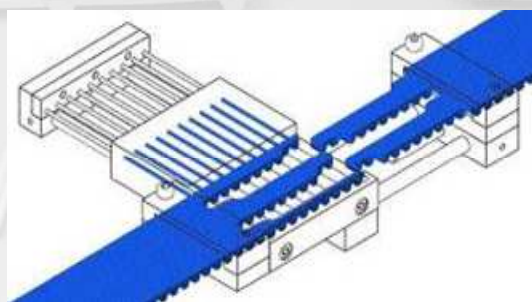
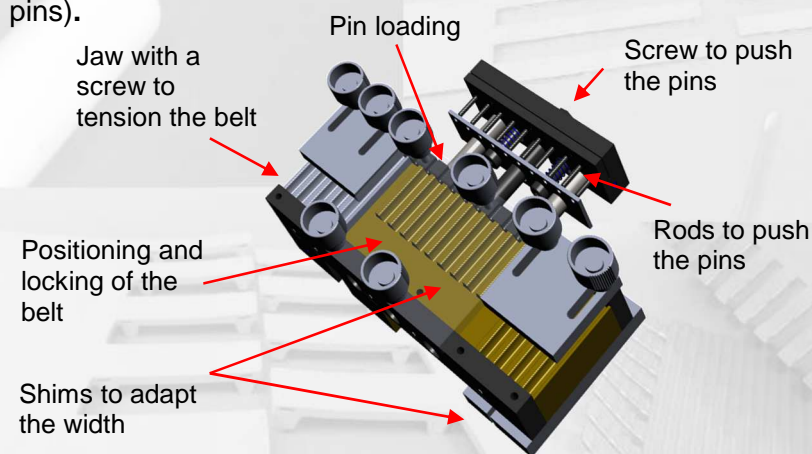
Theoretical calculations for an identical lifetime, following DesignFlex® data and Gates USA tests on ERO Joint® solutions.

Basically, Powergrip® HTD belts can be replaced by Poly Chain® Carbon™ Volt™ ERO Joint®.

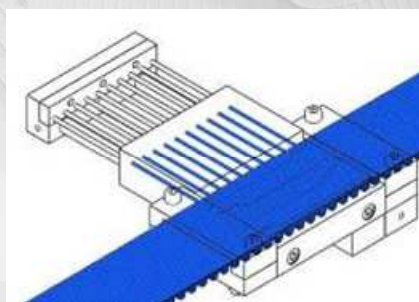
Powergrip® GT3 belts can be replaced by Poly Chain® Carbon™ Volt™ ERO Joint® Ultimate.

## Optional Assembly Tool (patented)

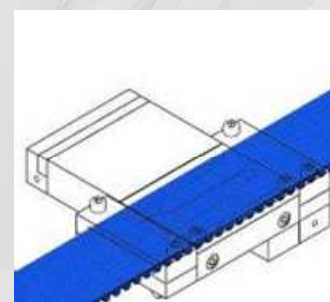
For systems without tensioning device, we can propose a **tensioning and assembly tool** (only available for pins).



Attaching the belt



Tensioning the belt



Threading the pins

**For more information about ERO Joint® solutions, visit our website:**  
[www.ero-joint.com](http://www.ero-joint.com)

May 2016