

Power belts

Synchronous power belts

We're showing you our teeth! A comparison of high performance belts



High efficiency, maintenance-free, quiet operation – there are many good reasons for deciding on the use of a belt drive.

Our rotary power belts guarantee a synchronous power transmission. The drive power and movement are transmitted to the tooth gaps of the toothed lock washer by positive-fit engagement of the belt teeth. The round tooth form of the power belt ensures an optimum distribution of power within the belt and provides for a high positioning accuracy.


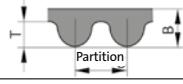

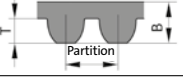

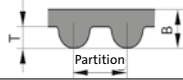

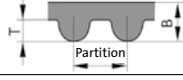
Highlights

- High efficiency
- Maintenance-free
- No speed differences thanks to zero slip – high precision
- High circumferential speeds can be achieved



High-power belt for high torques and smooth running

Overview

A comparison of synchronous toothed power belts						
Drive example: required standard belt width with an 8M/8MGT pitch and a safety factor $S > 1.4$ 40 kW at 3000 rpm						
POWERGRIP® HTD®	 85 mm		T	B	Available widths [mm]	Preferences
		3M	1,2	2,4	6, 9, 15	The classic model among toothed belts. The HTD® toothed belt (High Torque Drive) was developed in 1970 and was the first toothed belt featuring round teeth
		5M	2,1	3,8	9, 15, 25	
		8M	3,4	6	20, 30, 50, 85	
		14M	6,1	10,8	40, 55, 85, 115, 170	
20M	8,4	13,2	115, 170, 230, 290, 340			
POWERGRIP® GT3	 50 mm		T	B	Available widths [mm]	Preferences
		2MGT	0,71	1,52	3, 6, 9	PowerGrip® GT3 features a higher power transmission, positioning accuracy and a lower noise emission than HTD® toothed belts
		3MGT	1,12	2,41	6, 9, 15	
		5MGT	1,92	3,81	9, 15, 25	
		8MGT	3,4	5,6	20, 30, 50, 85	
14MGT	6	10	40, 55, 85, 115, 170			
POWERGRIP® GTX	 30 mm		T	B	Available widths [mm]	Preferences
		8M	3,4	5,6	20, 30, 40, 50, 65, 85	Easy replacement of HTD®/GT3 applications with a more compact drive unit, at the same time featuring a greater transmission performance
		14M	6	10	20, 40, 55, 85, 115, 170	
POLYCHAIN® CARBON™ VOLT®	 21 mm		T	B	Available widths [mm]	Preferences
		8MGT	3,4	5,9	12, 21, 36, 62	The strongest toothed belt on the market. The width & weight of the belt drive can be substantially reduced. The increased flexural strength allows for small disc diameters. The POLYCHAIN® belt features a high shock resistance and belt length stability and is statically conductive throughout the entire service life in compliance with ISO 9563 (corresponding to the ATEX guideline)
	14MGT	6	10,2	20, 37, 68, 90, 125		

When dimensioning and selecting the suitable toothed belt, not only the power transmission, but also ambient impacts, circumferential speeds, and the correct initial stress of the belt drive are relevant.

We'll be pleased to give you individual advice and assist you with the dimensioning process.