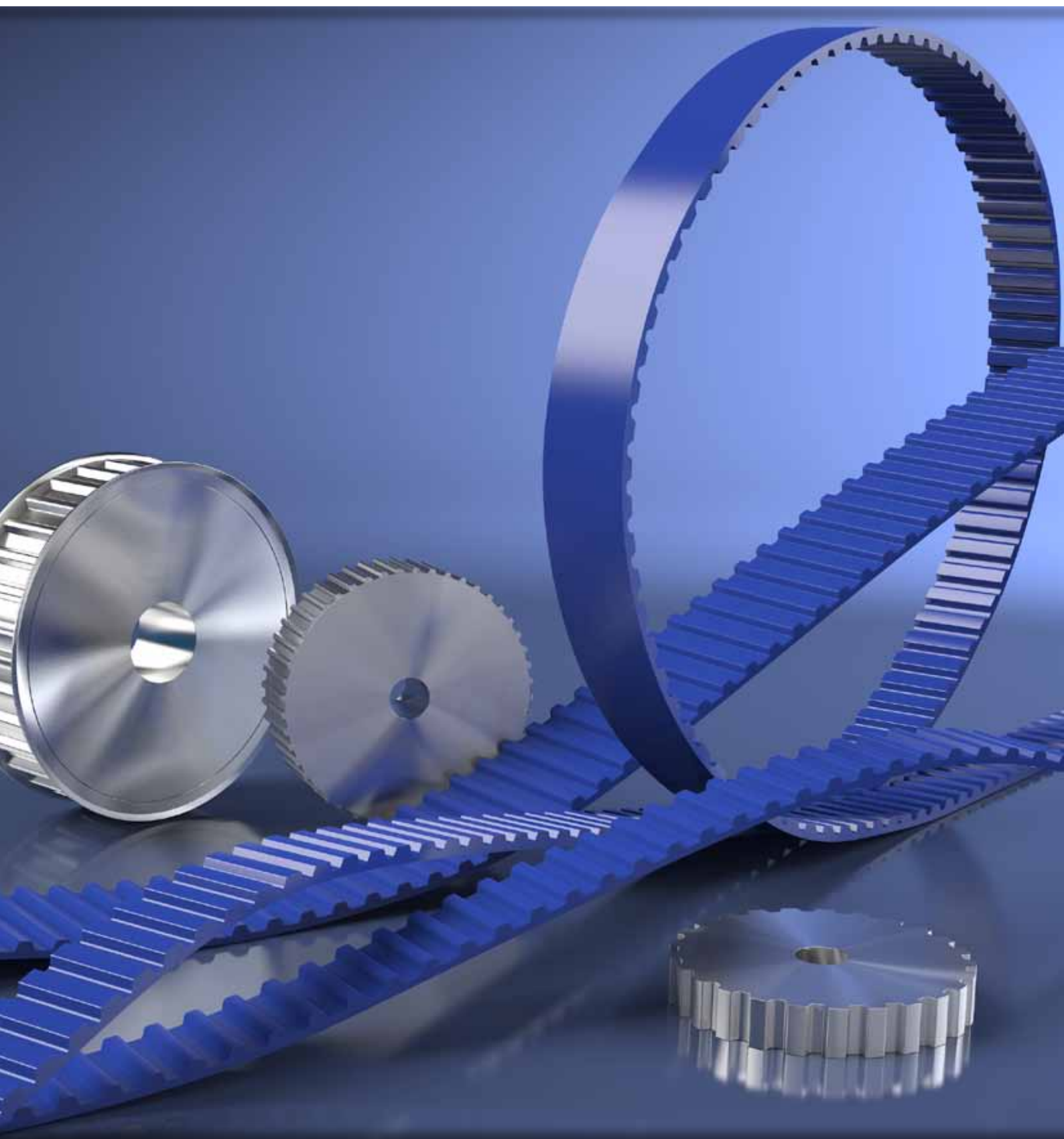


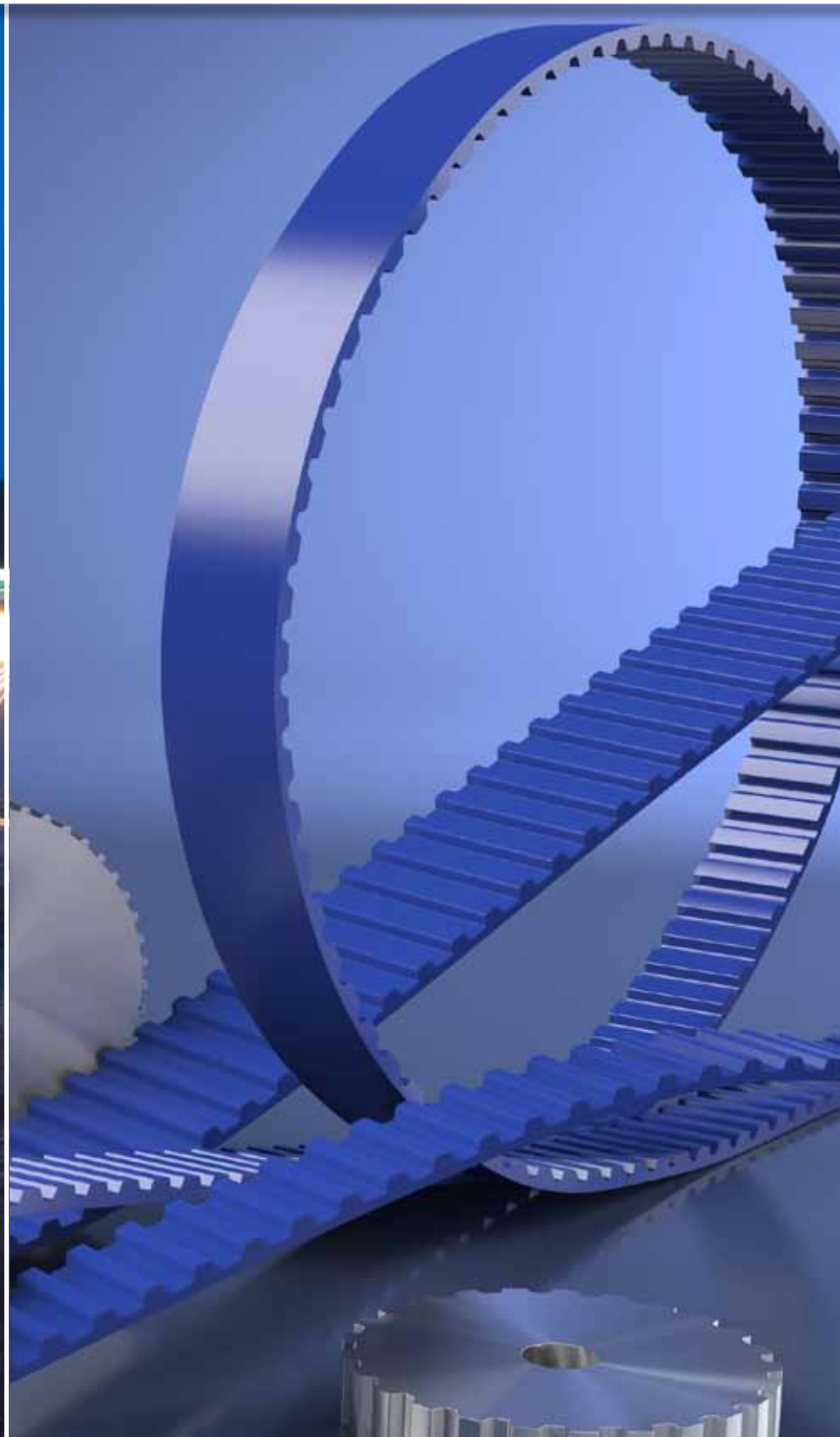
BRECOprotect® - Timing Belts

Corrosion-protected. FDA-compliant. Blue.



BRECO is member of Mulco Europe EWIV





Keeping things moving!

Innovation is what drives us. As the manufacturer of BRECO® and BRECOFLEX® timing belts, BRECO Antriebstechnik Breher GmbH & Co. KG is the world's leading producer in the field of polyurethane timing belt technology. Abrasion-resistant polyurethane for belt bodies and high-strength steel cord tension carriers form the basis of a reliable, first-class product.

As a result of years of experience in working with thermoplastic polyurethane, the development of the BRECO® and BRECOFLEX® production process and its continuous refinement, the BRECO name has become synonymous with polyurethane timing belts. The results of the decades of experience gained by countless users of the products are reflected in the BRECO® and BRECOFLEX® timing belts, as well as the toothed pulleys optimised for use with the belts and various other components made by BRECO. The consistent use of nothing but the highest grade of raw materials and our intensive coordination with our suppliers to meet the needs of our customers guarantee the utmost in quality.

The BRECOprotect® product line

The new BRECOprotect® product line offers timing belts with steel tension carriers completely embedded in polyurethane for protection against corrosion. The choice of material for the timing belts complies with FDA regulations and the blue colour is consistent with current requirements in the food processing industry.

The polyurethane used is compliant with the conformity criteria of the FDA Code of Federal Regulations, section 177.1680, the European Regulation (EC) 1935-2004, Regulation (EU) no. 10/2011 and European Commission Directives 90/128/EEC and 96/11/EC.

Staying safely on the move.

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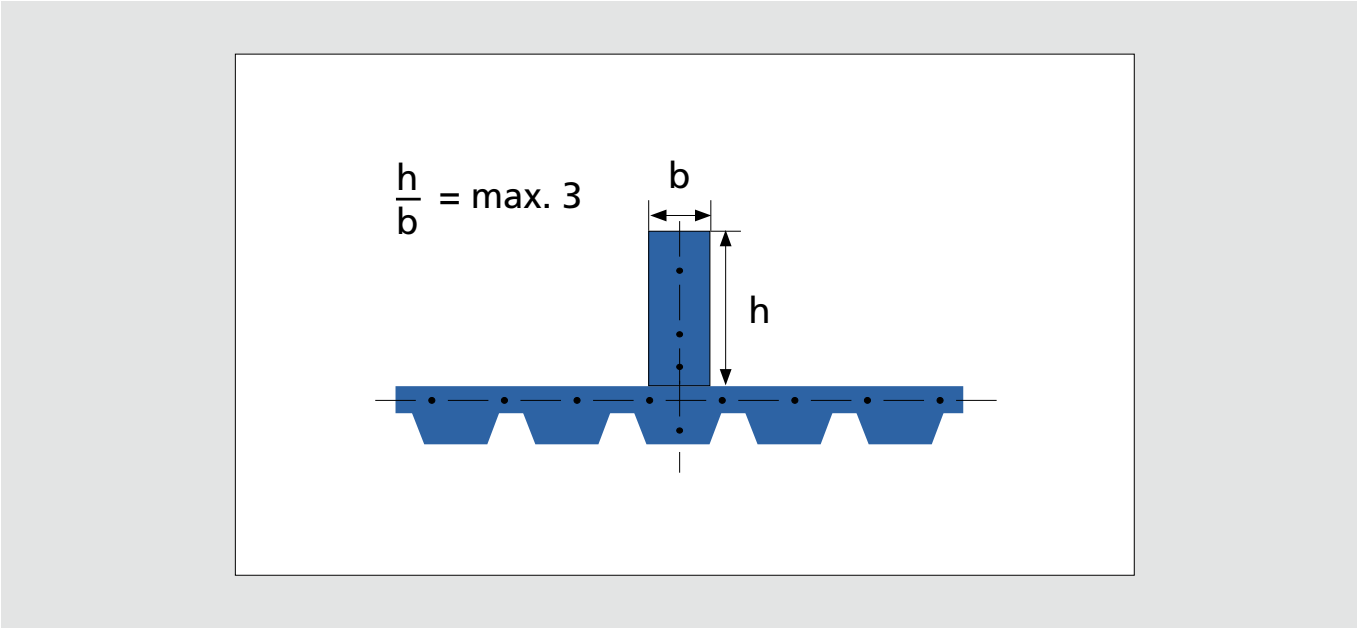


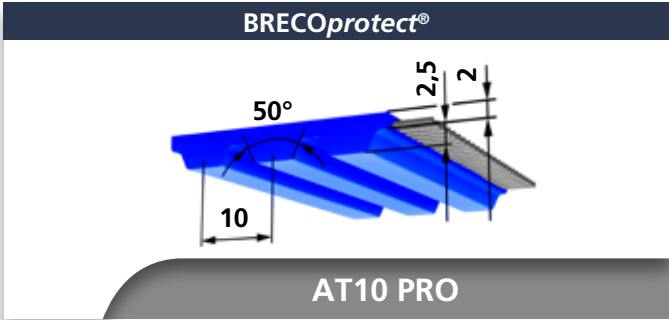
Notes on use

BRECOprotect® timing belts are designed especially to meet the strict requirements associated with contact with food and the cleaning processes necessary in these areas. The fact that these timing belts do not feature a groove prevents hidden and difficult-to-remove contamination and thus makes the cleaning process easier. The blue colour of the BRECOprotect® product range follows a general market trend towards a special food industry colour scheme. In addition, BRECOprotect® timing belts are suitable for use in moist environments, where there are severe limitations on the use of conventional timing belts on account of the appearance of hydrolysis.

BRECOprotect® timing belts are offered as a by-the-metre product and in welded “endless” format. There is unlikely to be any need for additional mechanical work on the polyurethane belt body due to the protection for the tension carrier. Belt designs with welded profiles are possible in principle. However, the potential profile sizes and their loads are limited, while TPUAU1 is a mandatory material and the colour blue is again recommended. The minimum number of teeth on the toothed pulleys when BRECOprotect® timing belts with welded profiles are used is $z_{min}=20$. The ratio of profile height to width ($h/width (b)$) must not exceed 3.

Further information on our products and the sales partners responsible can be found at www.breco.de.





AT10 PRO (M/V)		Specific tooth force			
R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]
0	87,50	1200	56,19	3600	37,93
20	86,22	1300	54,95	3800	36,97
40	85,01	1400	53,79	4000	36,06
60	83,88	1500	52,70	4500	33,97
80	82,81	1600	51,66	5000	32,08
100	81,80	1700	50,68	5500	30,36
200	77,43	1800	49,75	6000	28,79
300	73,87	1900	48,86	6500	27,33
400	70,88	2000	48,01	7000	25,98
500	68,29	2200	46,41	7500	24,72
600	66,02	2400	44,94	8000	23,54
700	63,98	2600	43,58	8500	22,43
800	62,15	2800	42,30	9000	21,37
900	60,47	3000	41,11	9500	20,38
1000	58,94	3200	39,99	10000	19,43
1100	57,51	3400	38,93		

Belt widths b [mm]				
25	32	50	75	100

AT10 PRO (M/V)	Available lengths and versions
Standard delivery lengths (M)	50 or 100-metre roll
Cut to lengths / lengths > 100 m	on request
Minimum length joined (V)	880 mm
Standard material	TPUAU1, FDA-compliant
Belt colour	blue
Belt widths	only belt widths listed in the table available

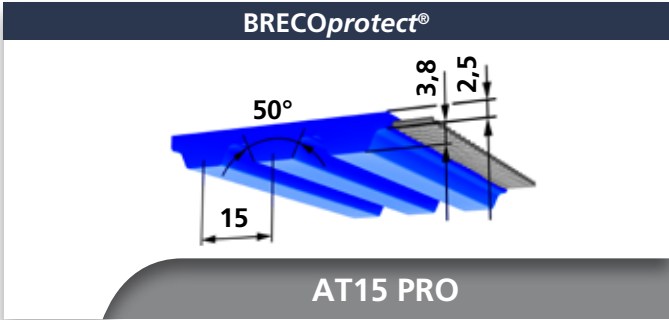
BRECOprotect® 100 AT10 PRO 50000 M	
Width b	
Type/pitch	
Length in mm	
By-the-metre product	

AT10 PRO (M/V)		Admissible tension cord strength F _{Tadm} / Specific elasticity / Belt weight					
Belt widths		b [mm]	25	32	50	75	100
M	Steel tension member	F _{Tadm} [N]	4250	5500	8500	12750	17000
	Specific elasticity	C _{spec} [N]	1,06·10 ⁶	1,37·10 ⁶	2,12·10 ⁶	3,18·10 ⁶	4,25·10 ⁶
V	Steel tension member	F _{Tadm} [N]	2125	2750	4250	6375	8500
Belt weight		Standard [kg/m]	0,158	0,186	0,290	0,436	0,581

Calculation as per specifications for BRECO® M and BRECO® V timing belts.

AT10 PRO (M/V)		Flexibility (minimum tooth count/minimum diameter)			
		Steel tension member			
			M	V	
	Without contraflexure	z _{min}	18	18	
		d _{min} [mm]	60	60	
	With contraflexure	z _{min}	25	25	
		d _{min} [mm]	120	120	





AT15 PRO (M/V)		Specific tooth force			
R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]
0	133,00	1200	80,98	3600	51,15
20	130,82	1300	78,95	3800	49,59
40	128,78	1400	77,05	4000	48,11
60	126,87	1500	75,26	4500	44,70
80	125,07	1600	73,57	5000	41,62
100	123,37	1700	71,96	5500	38,83
200	116,04	1800	70,44	6000	36,27
300	110,12	1900	68,98	6500	33,90
400	105,15	2000	67,59		
500	100,88	2200	64,99		
600	97,13	2400	62,59		
700	93,78	2600	60,36		
800	90,76	2800	58,29		
900	88,01	3000	56,34		
1000	85,48	3200	54,51		
1100	83,15	3400	52,78		

Belt widths b [mm]				
25	32	50	75	100

AT15 PRO (M/V)	Available lengths and versions
Standard delivery lengths (M)	50 or 100-metre roll
Cut to lengths / lengths > 100 m	on request
Minimum length joined (V)	960 mm
Standard material	TPUAU1, FDA-compliant
Belt colour	blue
Belt widths	only belt widths listed in the table available

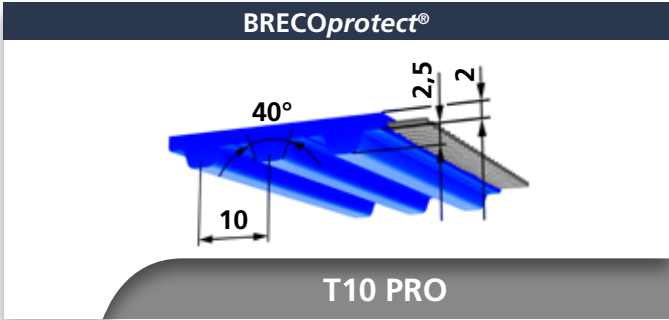
BRECOprotect® 75 AT15 PRO 9000 V			
Width b			
Type/pitch			
Length in mm			
Welded			

AT15 PRO (M/V)		Admissible tension cord strength F _{Tadm} / Specific elasticity / Belt weight					
Belt widths		b [mm]	25	32	50	75	100
M	Steel tension member	F _{Tadm} [N]	4800	5600	9600	14400	19200
	Specific elasticity	C _{spec} [N]	1,2·10 ⁶	1,4·10 ⁶	2,4·10 ⁶	3,6·10 ⁶	4,8·10 ⁶
V	Steel tension member	F _{Tadm} [N]	2400	2800	4800	7200	9600
Belt weight		Standard [kg/m]	0,194	0,248	0,388	0,581	0,775

Calculation as per specifications for BRECO® M and BRECO® V timing belts.

AT15 PRO (M/V)		Flexibility (minimum tooth count/minimum diameter)			
		Steel tension member			
			M	V	
	Without contraflexure	z _{min}	25	25	
		d _{min} [mm]	120	120	
	With contraflexure	z _{min}	40	40	
		d _{min} [mm]	250	250	





T10 PRO (M/V)		Specific tooth force			
R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]	R.p.m. n [min ⁻¹]	F _{tspec} [N/cm]
0	50,50	1200	29,30	3600	20,70
20	49,00	1300	28,70	3800	20,30
40	47,70	1400	28,20	4000	19,86
60	46,60	1500	27,60	4500	18,91
80	45,70	1600	27,10	5000	18,06
100	44,80	1700	26,70	5500	17,28
200	41,40	1800	26,20	6000	16,58
300	39,10	1900	25,80	6500	15,93
400	37,20	2000	25,40	7000	15,33
500	35,70	2200	24,60	7500	14,76
600	34,40	2400	23,90	8000	14,24
700	33,30	2600	23,30	8500	13,74
800	32,40	2800	22,70	9000	13,28
900	31,50	3000	22,20	9500	12,84
1000	30,70	3200	21,70	10000	12,42
1100	30,00	3400	21,20		

Belt widths b [mm]					
16	25	32	50	75	100

T10 PRO (M/V)	Available lengths and versions
Standard delivery lengths (M)	50 or 100-metre roll
Cut to lengths / lengths > 100 m	on request
Minimum length joined (V)	880 mm
Standard material	TPUAU1, FDA-compliant
Belt colour	blue
Belt widths	only belt widths listed in the table available

BRECOprotect® 50 T10 PRO 4500 V			
Width b			
Type/pitch			
Length in mm			
Welded			

T10 PRO (M/V)		Admissible tension cord strength F _{Tadm} / Specific elasticity / Belt weight						
Belt widths		b [mm]	16	25	32	50	75	100
M	Steel tension member	F _{Tadm} [N]	1400	2200	2800	4400	6600	8800
	Specific elasticity	C _{spec} [N]	3,5·10 ⁵	5,5·10 ⁵	7,0·10 ⁵	11,0·10 ⁵	16,5·10 ⁵	22,0·10 ⁵
V	Steel tension member	F _{Tadm} [N]	700	1100	1400	2200	3300	4400
Belt weight		Standard [kg/m]	0,073	0,114	0,145	0,227	0,341	0,454

Calculation as per specifications for BRECO® M and BRECO® V timing belts.

T10 PRO (M/V)		Flexibility (minimum tooth count/minimum diameter)			
		Steel tension member			
			M	V	
	Without contraflexure	z _{min}	15	15	
		d _{min} [mm]	60	60	
	With contraflexure	z _{min}	20	20	
		d _{min} [mm]	60	60	



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 THE POWER OF A WELL-MESHED GROUP.

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BRECO insists on high quality not only in its manufacturing processes but also in the standard of its advice and service in everything to do with polyurethane timing belt technology. Our distribution partners are all specialists in this field who themselves offer first-class customer service.

BRECO is a member of Mulco Europe EWIV, a European Economic Interest Grouping (EEIG). All the members of this group are considered pioneers in the field of polyurethane timing belt technology. The trust which has evolved over many years and the intensive cooperation have been and will continue to be the basis for innovative power transmission solutions in mechanical engineering in general.

BRECO® and BRECOFLEX® timing belts - staying safely on the move.

Available product catalogues - for every application the right product

BRECO® and BRECOFLEX® timing belts

- General information (application and calculation notes)
- Endless timing belts (BRECOFLEX®)
- Open length timing belts (BRECO® M)
- Endless joined timing belts (BRECO® V)
- Timing belt lock for AT10, T10

ATN-System - BRECO® timing belts for transport technology

- General information (application information and notes on calculations)
- ATN timing belts
- ATN timing belt lock
- ATN standard profile connection
- ATN profiles
- ATN components

BRECO® und BRECOFLEX® flat belts

- General information
- Endless flat belts (BRECOFLEX®)
- Open length timing belts (BRECO® M)
- Open length flat belts (BRECO® M)
- Endless joined flat belts (BRECO® V)

Finishing of timing belts

- Coatings for polyurethane timing belts
- Mechanical rework of coatings
- Mechanical rework of timing belts
- Welded-on profiles
- High strength profile connection

Components

- General information
- Timing pulleys
- Synchronising pulleys with tensioners
- Synchronising shafts
- Tension rollers
- BRECO® fix-clamping elements

BRECObasic®-timing belts

- Product range
- Coatings for BRECObasic® timing belts

BRECOprotect®-timing belts

- Product range

Further information about:

- Sales partners
- New products and developments
- Available catalogues can be found at www.breco.de

Warranty

All information has been compiled with the utmost care and attention and reflects the current state of knowledge. However, we would like to particularly draw your attention to the fact that all technical data is quoted subject to tolerances and must not be interpreted as a guaranteed delivery specification. We reserve the right to make technical changes as part of our continuous product development process.

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Keeping things moving!



This company positioning confronts
BRECO Antriebstechnik Breher GmbH & Co. KG,
manufacturer of BRECO® and BRECOFLEX® timing belts,
with new great challenges, which are accepted with pleasure.

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