

BRECO *flex* CO., L.L.C.

High Precision Drive Components

The World Leader In Polyurethane Timing Belts

BRECO*vacuum* Polyurethane Timing Belt



Overview

Products such as films, paper, glass or metal sheets require vacuum timing belts to effectively transport them. This type of timing belt and associated components are very specific to the application. Typically, it requires applications engineers working closely with customers to develop a system of properly sized timing belts with the appropriate arrangement of vacuum slots, and pulleys. **BRECO*vacuum*** make this process faster and easier.

The **BRECO*vacuum*** timing belt is manufactured using an extrusion process which results in a lower costing belt compared to systems that use a multi step process for adhering the slide rails and vacuum channels. The system is currently available in 50mm and 75mm wide AT10 pitch.



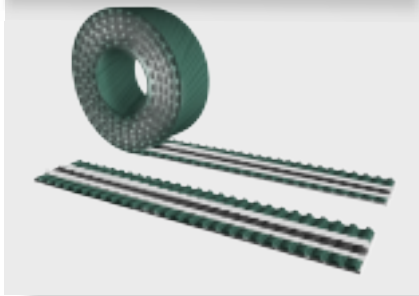
The picture above shows a specific design with grey backing and elongated, diagonal vacuum pockets. The center of the belt has a relief zone for punching vacuum holes. For flexibility in design, there is virtually no limitation on backing options. Contact applications engineering to determine best backing material and vacuum hole design for your timing belt application.



Charts

The **BRECOvacuum** system consists of timing belts and pulleys which combines the drive tracks, the vacuum channels and the required sealing bars. Having a coordinated component system insures perfect meshing and smooth operation.

Open-Ended "M"



Specifications

Widths (mm) <small>In between widths available</small>	50	75
Lengths	Any Lengths available	
Available Options	Nylon coating tooth side (PAZ), Nylon backing (PAR), Polyamide fabric coating on vacuum track	
Tension Member Options	Steel standard VA301 Stainless steel	

Note: Diameter of the suction hole is ≤ 4 mm.

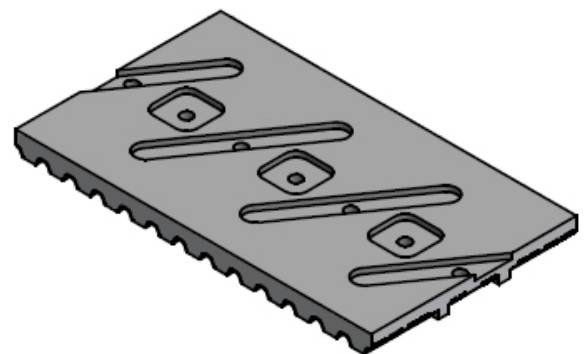
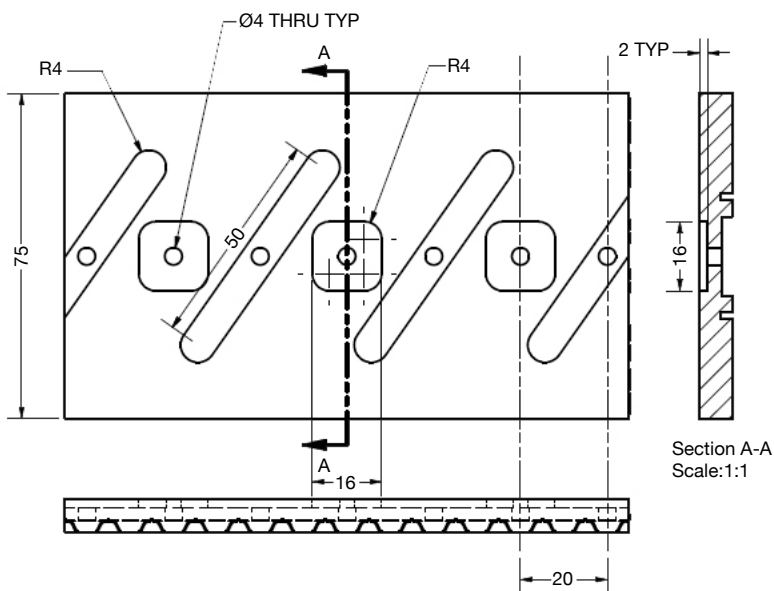
Spliced and Welded "V"



Specifications

Widths (mm) <small>In between widths available</small>	50	75
Min. Joined Length (mm) <small>Increasing in one tooth increments</small>	1,200	
Available Options	Nylon coating tooth side (PAZ), Nylon backing (PAR), Polyamide fabric coating on vacuum track	
Tension Member Options	Steel standard VA301 Stainless steel	

Note: Diameter of the suction hole is ≤ 4 mm.



75 AT10 VAC/7500 V PAZ PAR with a 3mm PU Gray Back Cover with $\varnothing 4.00$ mm holes located every 20.00mm centered on belt width and over a tooth with angled slots or pockets as shown above

BRECOvacuum

Charts cont.

BRECOvacuum AT10 M/V Specific Tooth Shear Strength			
50mm		75mm	
RPM n [min ⁻¹]	FORCE F_{SPEC} [N/cm]	RPM n [min ⁻¹]	FORCE F_{SPEC} [N/cm]
0	36.8	0	55.4
20	36.2	20	54.6
40	35.7	40	53.8
60	35.2	60	53.1
80	34.8	80	52.4
100	34.4	100	51.8
200	32.5	200	49.0
300	31.0	300	46.8
400	29.8	400	44.9
500	28.7	500	43.3

BRECOvacuum AT10 Specifications				
Construction	Tension member	Parameter	Belt Width (mm)	
			50	75
Open-Ended "M"	Steel	Allowable Force F_{TZUL} [N]	2,500	4,500
		Spring Rate C_{SPEC} [N]	1.25 E6	2.24 E6
	VA	Allowable Force F_{TZUL} [N]	1,860	3,350
		Spring Rate C_{SPEC} [N]	1.25 E6	2.24 E6
	VA/Steel	Belt Weight [kg/m]	.255	.413
	Spliced and Welded "V"	Steel	Allowable Force F_{TZUL} [N]	1,250
VA		Allowable Force F_{TZUL} [N]	930	1,675
VA/Steel		Belt Weight [kg/m]	.255	.413

BRECOvacuum AT10 Flexibility (minimum tooth count/minimum diameter)										
	Drive w/o back bending	<table border="1"> <tr> <td>Tension Member</td> <td>BRECOvacuum AT10 Tension Member</td> </tr> <tr> <td>Construction</td> <td>M/V</td> </tr> <tr> <td>Z_{min} (# of teeth)</td> <td>38</td> </tr> <tr> <td>d_{min} (mm)(Ø)</td> <td>120</td> </tr> </table>	Tension Member	BRECOvacuum AT10 Tension Member	Construction	M/V	Z _{min} (# of teeth)	38	d _{min} (mm)(Ø)	120
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