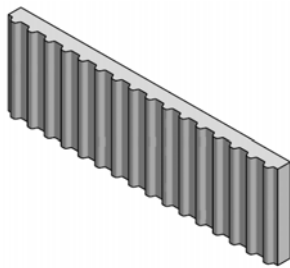


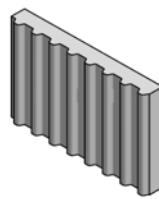
BRECOflex Clamps – Solutions for Timing Belt Linear Drives

All timing belt linear drives require a clamp to transfer the belt motion to linear shuttle travel. Use BRECOflex stock and custom clamps to ensure a solid attachment for full belt strength utilization. One or more of the following three clamp types are recommended depending on the drive layout and application.

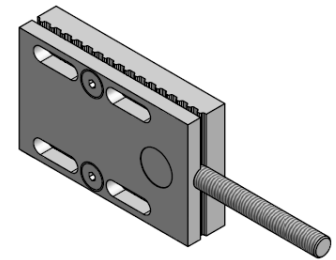
1) Standard Clamp



2) Half Clamp

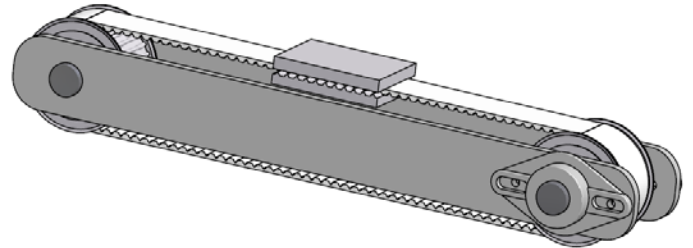


3) Tensioning Clamp

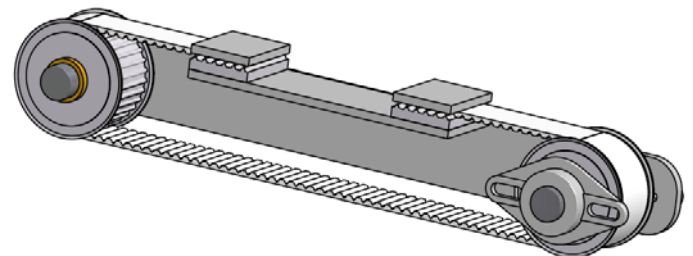


Application Examples for 3 clamp types:

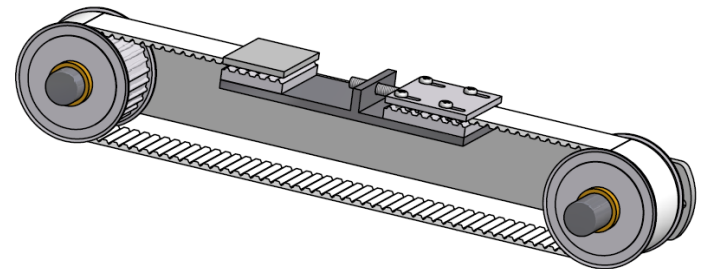
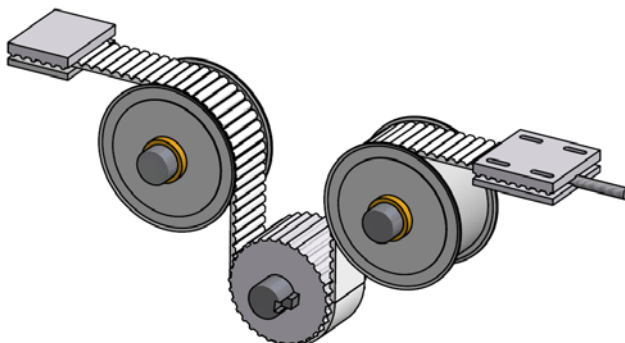
1) Standard Clamp – used for connecting both belt ends together at the carriage



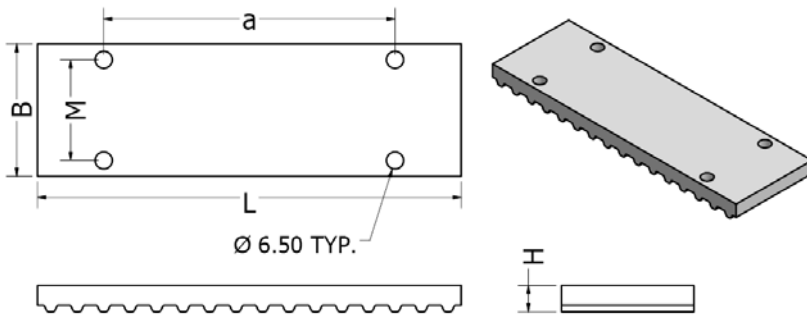
2) Half Clamp – used for connecting each belt end to the carriage or machine frame



3) Tensioning Clamp – used like a half clamp, but also to adjust tension in the system



Standard Clamp – Used for connecting both belt ends



Clamp part description:

B x L (belt pitch) Type (O or B)
 Type O = clamp with no holes
 Type B = clamp with holes

Note:
 Standard material is AL 6061

5 teeth minimum engagement recommended at each belt end

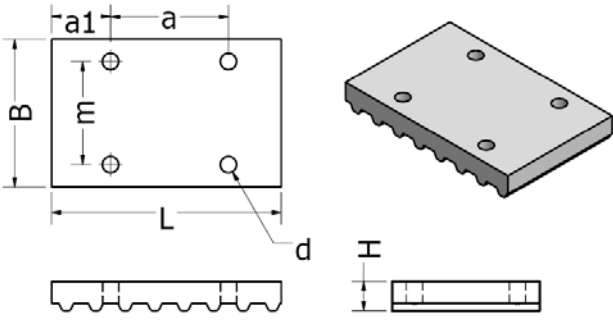
Standard Clamp Dimensions - Metric Pitch							
Belt Pitch	Belt Width b(mm)	Part Number	B(mm)	L(mm)	M(mm)	H(mm)	a(mm)
AT5	25	50 x 120 AT5 Clamp Type (O or B)	50	120	38	10	80
	32	60 x 120 AT5 Clamp Type (O or B)	60		46		
	50	75 x 120 AT5 Clamp Type (O or B)	75		62		
	75	110 x 120 AT5 Clamp Type (O or B)	110		94		
	100	140 x 120 AT5 Clamp Type (O or B)	140		124		
AT10	25	50 x 160 AT10 Clamp Type (O or B)	50	160	38	10	80
	32	60 x 160 AT10 Clamp Type (O or B)	60		46		
	50	75 x 160 AT10 Clamp Type (O or B)	75		62		
	75	110 x 160 AT10 Clamp Type (O or B)	110		94		
	100	140 x 160 AT10 Clamp Type (O or B)	140		124		
	150	190 x 160 AT10 Clamp Type (O or B)	190		174		
AT20	25	50 x 200 AT20 Clamp Type (O or B)	50	200	38	20	160
	32	60 x 200 AT20 Clamp Type (O or B)	60		46		
	50	75 x 200 AT20 Clamp Type (O or B)	75		62		
	75	110 x 200 AT20 Clamp Type (O or B)	110		94		
	100	140 x 200 AT20 Clamp Type (O or B)	140		124		
	150	190 x 200 AT20 Clamp Type (O or B)	190		174		

Belt Pitch	Belt Width b(mm)	Part Number	B(mm)	L(mm)	M(mm)	H(mm)	a(mm)
T5	25	50 x 120 T5 Clamp Type (0 or B)	50	120	38	10	80
	32	60 x 120 T5 Clamp Type (0 or B)	60		46		
	50	75 x 120 T5 Clamp Type (0 or B)	75		62		
	75	110 x 120 T5 Clamp Type (0 or B)	110		94		
	100	140 x 120 T5 Clamp Type (0 or B)	140		124		
T10	25	50 x 160 T10 Clamp Type (0 or B)	50	160	38	10	80
	32	60 x 160 T10 Clamp Type (0 or B)	60		46		
	50	75 x 160 T10 Clamp Type (0 or B)	75		62		
	75	110 x 160 T10 Clamp Type (0 or B)	110		94		
	100	140 x 160 T10 Clamp Type (0 or B)	140		124		
	150	190 x 160 T10 Clamp Type (0 or B)	190		174		
T20	25	50 x 200 T20 Clamp Type (0 or B)	50	200	38	20	160
	32	60 x 200 T20 Clamp Type (0 or B)	60		46		
	50	75 x 200 T20 Clamp Type (0 or B)	75		62		
	75	110 x 200 T20 Clamp Type (0 or B)	110		94		
	100	140 x 200 T20 Clamp Type (0 or B)	140		124		
	150	190 x 200 T20 Clamp Type (0 or B)	190		174		

Standard Clamp Dimensions – Imperial Pitch

Belt Pitch	Belt Width b(mm)	Part Number	B(mm)	L(mm)	M(mm)	H(mm)	a(mm)
T1/5" (XL)	25.4	50 x 120 T1/5" Clamp Type (0 or B)	50	120	38	10	80
T3/8" (L)	25.4	50 x 160 T3/8" Clamp Type (0 or B)	50	160	38	10	110
	38.1	60 x 160 T3/8" Clamp Type (0 or B)	60		46		
	50.8	75 x 160 T3/8" Clamp Type (0 or B)	75		94		
T1/2" (H)	25.4	50 x 160 T1/2" Clamp Type (0 or B)	50	160	38	10	110
	38.1	60 x 160 T1/2" Clamp Type (0 or B)	60		46		
	50.8	75 x 160 T1/2" Clamp Type (0 or B)	75		62		
	76.2	110 x 160 T1/2" Clamp Type (0 or B)	110		94		
	101.6	140 x 160 T1/2" Clamp Type (0 or B)	140		124		
T7/8" (XH)	25.4	50 x 200 T7/8" Clamp Type (0 or B)	50	200	38	20	160
	38.1	60 x 200 T7/8" Clamp Type (0 or B)	60		46		
	50.8	75 x 200 T7/8" Clamp Type (0 or B)	75		62		
	76.2	110 x 200 T7/8" Clamp Type (0 or B)	110		94		
	101.6	140 x 200 T7/8" Clamp Type (0 or B)	140		124		

Half Clamp - Used for connecting one belt end



Clamp part description:

B x L (belt pitch) Type (O or B)
 Type O = clamp with no holes
 Type B = clamp with holes

Note:
 Standard material is AL 6061

5 teeth minimum engagement recommended at each belt end

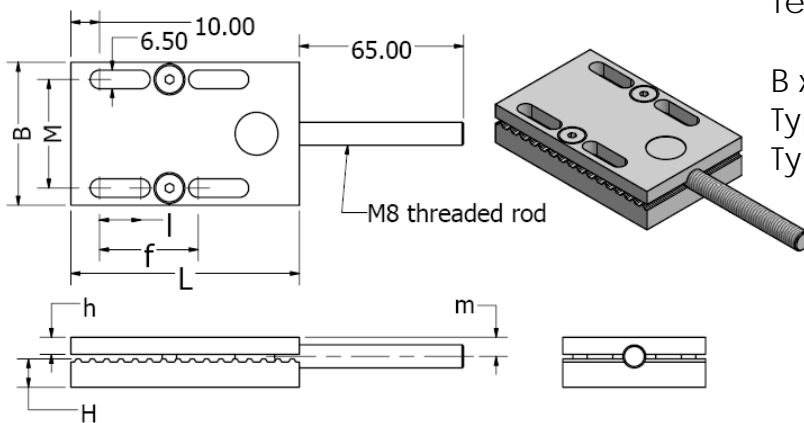
Short Clamp Dimensions – Metric Pitch									
Belt Pitch	Belt Width b(mm)	Part Number	B(mm)	L(mm)	m(mm)	H(mm)	a(mm)	a1(mm)	d(mm)
AT5	25	50 x 58 AT5 Clamp Type (O or B)	25	58	35	10	30	15	5.5
	32	60 x 58 AT5 Clamp Type (O or B)	32		42				
	50	75 x 58 AT5 Clamp Type (O or B)	50		60				
	75	110 x 58 AT5 Clamp Type (O or B)	75		90				
AT10	25	50 x 78 AT10 Clamp Type (O or B)	25	78	35	10	40	20	5.5
	32	60 x 78 AT10 Clamp Type (O or B)	32		42				
	50	75 x 78 AT10 Clamp Type (O or B)	50		60				
	75	110 x 78 AT10 Clamp Type (O or B)	75		90				
AT20	25	50 x 98 AT20 Clamp Type (O or B)	25	98	35	20	60	20	9
	32	60 x 98 AT20 Clamp Type (O or B)	32		42				
	50	75 x 98 AT20 Clamp Type (O or B)	50		60				
	75	110 x 98 AT20 Clamp Type (O or B)	75		90				
T5	25	50 x 58 T5 Clamp Type (O or B)	50	58	35	10	30	15	5.5
	32	60 x 58 T5 Clamp Type (O or B)	60		42				
	50	75 x 58 T5 Clamp Type (O or B)	75		60				
	75	110 x 58 T5 Clamp Type (O or B)	110		90				
T10	25	50 x 78 T10 Clamp Type (O or B)	50	78	35	10	40	20	5.5
	32	60 x 78 T10 Clamp Type (O or B)	60		42				
	50	75 x 78 T10 Clamp Type (O or B)	75		60				
	75	110 x 78 T10 Clamp Type (O or B)	110		90				

Tensioning Clamp – Used to connect one belt end and adjust belt length

L-Type Assembly - Place at least 5 belt teeth into the clamp. Bolt the clamp plates together by tightening the setscrews to secure the belt in place. Place the threaded rod through a hole on a mounted fixture. Place a nut behind the fixture to hold the belt in place. By tightening the nut, the tensioning clamp will pull the belt and apply tension. After applying the proper tension, tighten the slotted hole bolts to keep the clamp in position. By doing this, the pressure will be relieved on the threaded rod. Properly mounted tensioning clamps transfer all of the forces onto the mounted bolts and none on the threaded rod. <Click to view assembly animation>

G-Type Assembly – Place at least 5 belt teeth into the clamp. Tighten the clamp plates on the belt using four bolts. Place the clamp on the fixture such that the four protruding bolts engage in four slotted holes on a fixture. Place the threaded rod through a hole on a mounted fixture. Place a nut behind the fixture to hold the belt in place. By tightening the nut, the tensioning clamp will pull the belt applying tension. After applying the proper tension, place nuts on the four protruding bolts and tighten. This should release the pressure on the threaded rod and transfer all of the forces onto the four bolts. <Click to view assembly animation>

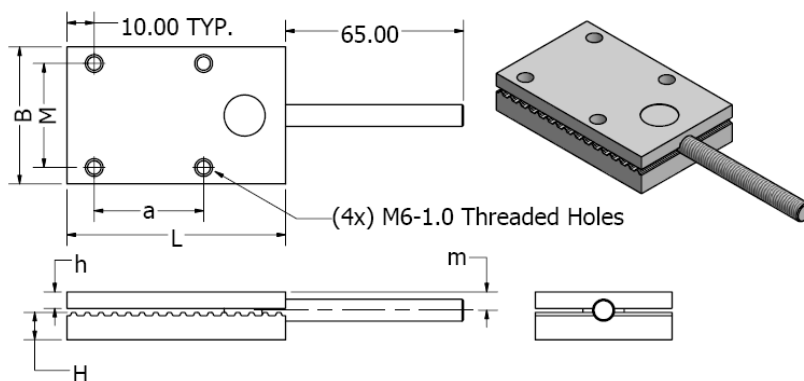
Tensioning Clamp Drawing - Type L



Tensioning clamp part description:

B x L (belt pitch) Tensioner Type (L or G)
Type L = clamp with slotted holes
Type G = clamp with thru holes

Tensioning Clamp Drawing - Type G



Tensioning Clamp Dimensions – Metric Pitch

Belt Pitch	Belt Width(mm)	Part Number	B(mm)	L(mm)	M(mm)	m(mm)	H(mm)	h(mm)	a(mm)	f(mm)	l(mm)
AT5	25	50 x 80 AT5 Tensioner Type (L or G)	50	80	38	7	10	6	40	35	15
	32	60 x 80 AT5 Tensioner Type (L or G)	60		46						
	50	75 x 80 AT5 Tensioner Type (L or G)	75		62						
	75	110 x 80 AT5 Tensioner Type (L or G)	100		94						
	100	140 x 80 AT5 Tensioner Type (L or G)	140		124						
AT10	25	50 x 80 AT10 Tensioner Type (L or G)	50	80	38	7	10	6	40	35	15
	32	60 x 80 AT10 Tensioner Type (L or G)	60		46						
	50	75 x 80 AT10 Tensioner Type (L or G)	75		62						
	75	110 x 80 AT10 Tensioner Type (L or G)	100		94						
	100	140 x 80 AT10 Tensioner Type (L or G)	140		124						
	150	190 x 80 AT10 Tensioner Type (L or G)	190		174						
AT20	25	50 x 130 AT20 Tensioner Type (L or G)	50	130	38	9.5	20	8	60	55	25
	32	60 x 130 AT20 Tensioner Type (L or G)	60		46						
	50	75 x 130 AT20 Tensioner Type (L or G)	75		62						
	75	110 x 130 AT20 Tensioner Type (L or G)	100		94						
	100	140 x 130 AT20 Tensioner Type (L or G)	140		124						
	150	190 x 130 AT20 Tensioner Type (L or G)	190		174						
T5	25	50 x 80 T5 Tensioner Type (L or G)	50	80	38	7	10	6	40	35	15
	32	60 x 80 T5 Tensioner Type (L or G)	60		46						
	50	75 x 80 T5 Tensioner Type (L or G)	75		62						
	75	110 x 80 T5 Tensioner Type (L or G)	100		94						
	100	140 x 80 T5 Tensioner Type (L or G)	140		124						

Belt Pitch	Belt Width(mm)	Part Number	B(mm)	L(mm)	M(mm)	m(mm)	H(mm)	h(mm)	a(mm)	f(mm)	l(mm)
T10	25	50 x 80 T10 Tensioner Type (L or G)	50	80	38	7	10	6	40	35	15
	32	60 x 80 T10 Tensioner Type (L or G)	60		46						
	50	75 x 80 T10 Tensioner Type (L or G)	75		62						
	75	110 x 80 T10 Tensioner Type (L or G)	100		94						
	100	140 x 80 T10 Tensioner Type (L or G)	140		124						
T20	25	50 x 130 T20 Tensioner Type (L or G)	50	130	38	9.5	20	8	60	55	25
	32	60 x 130 T20 Tensioner Type (L or G)	60		46						
	50	75 x 130 T20 Tensioner Type (L or G)	75		62						
	75	110 x 130 T20 Tensioner Type (L or G)	100		94						
	100	140 x 130 T20 Tensioner Type (L or G)	140		124						
	150	190 x 130 T20 Tensioner Type (L or G)	190		174						

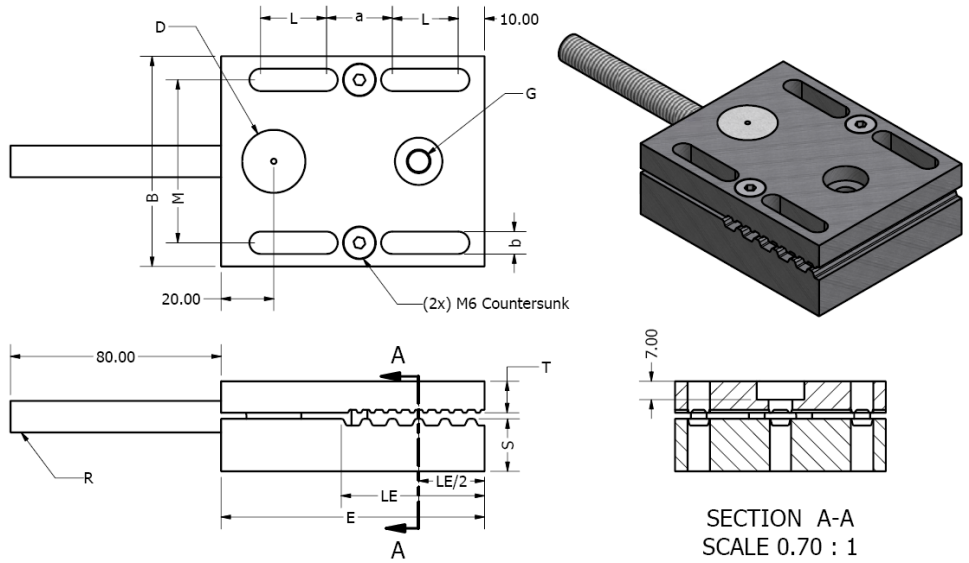
Tensioning Clamp Dimensions – Imperial Pitch

Belt Pitch	Belt Width(mm)	Part Number	B(mm)	L(mm)	M(mm)	m(mm)	H(mm)	h(mm)	a(mm)	f(mm)	l(mm)
T1/5"	25.4	50 x 80 T1/5" Tensioner Type (L or G)	50	80	38	7	10	6	40	25	15
T3/8"	25.4	50 x 80 T3/8" Tensioner Type (L or G)	50	80	38	7	10	6	40	25	15
	38.1	63 x 80 T3/8" Tensioner Type (L or G)	63		51						
	50.8	75.5 x 80 T3/8" Tensioner Type (L or G)	75.5		63.5						
T1/2" (H)	25.4	50 x 90 T1/2" Tensioner Type (L or G)	50	90	38	7	10	6	50	35	15
	38.1	63 x 90 T1/2" Tensioner Type (L or G)	63		51						
	50.8	75.5 x 90 T1/2" Tensioner Type (L or G)	75.5		63.5						
	76.2	101 x 90 T1/2" Tensioner Type (L or G)	101		89						
	101.6	126 x 90 T1/2" Tensioner Type (L or G)	126		114						
T7/8" (XH)	101.6	126 x 140 T7/8" Tensioner Type (L or G)	126	140	114	10.5	20	8	70	55	25

ATL Tensioning Clamps:

ATL Tensioning Clamps are machined steel half clamps with integrated tensioning. They have a higher tension loading capacity than the standard aluminum tensioners and are recommended for use with high strength ATL-series belting. Steel grade is A 570.

ATL Tensioning Clamp Drawing:



Belt Pitch	Belt Width (mm)	Part Number	Width B(mm)	Length E(mm)	Bottom Plate Thickness S(mm)	Top Plate Thickness T(mm)	Tensioning Rod Thread, R	Barrel Nut Diameter D(mm)	M(mm)	b(mm)	Bottom Plate G(mm)	Top Plate G(mm)	LE(mm)	L(mm)	a(mm)
ATL10	32	ST 60 x 100 AT10 Tensioner Type L	60	100	20	12	M12	24	46	8.5	M8	9	50	25	25
	50	ST 80 x 100 AT10 Tensioner Type L	80												
	75	ST 110 x 150 AT10 Tensioner Type L	110	10.5					11						
	100	ST 140 x 150 AT10 Tensioner Type L	140				100								
	150	ST 190 x 150 AT10 Tensioner Type L	190	100											
ATL20	50	ST 80 x 150 ATL20 Tensioner Type L	80		150	20	12	M12	24	62	10.5	M8	9	100	25
	75	ST 110 x 150 ATL20 Tensioner Type L	110	94											
	100	ST 140 x 150 ATL20 Tensioner Type L	140				15	M16	30	M10		11			
	150	ST 190 x 150 ATL20 Tensioner Type L	190	100											

Custom Clamps:

Custom Clamps machined to print are available in various materials and surface finishes. Custom clamps modified from stock AL 6061 extruded clamps are available in as little as two weeks. Submit drawings or technical specifications to [Applications Engineering](#) for quotations.

