

APR
2012



TECHNICAL DATA & INFORMATION



EAGLE
POLYURETHANE BELTING & O-RINGS



Round Belting

2mm	2.4mm	3mm	3/32"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	9/16"	5/8"	19mm	20mm
-----	-------	-----	-------	------	-------	------	-------	------	------	-------	------	------	------

Non-Reinforced Belting	Eagle Blue 80 EC[‡]			●	●	●	●	●	●	●												
	Eagle Clear 80 EC[‡]			●	●	●	●	●	●	●												
	Eagle Opaque 80	●		●	●	●	●	●	●	●		●			●				●			
	Eagle Orange 85[‡]	●	●	●	●	●	●	●	●	●	●	●		●			●			●		
	Eagle Clear 85[‡]	●	●	●	●	●	●	●	●	●	●	●		●			●			●		
	Eagle Ivory 85																					
	Eagle Green 89										●	●				●			●		●	
	Eagle Green 89 T	●		●	●	●	●		●	●		●	●			●			●		●	
	Eagle Red 90	●		●	●	●	●		●	●	●	●		●		●			●		●	
	Eagle Beige 95[‡]					●			●		●				●							
	Eagle Clear 95[‡]		●	●		●		●	●			●		●		●			●		●	
	Eagle White 40D[‡]			●	●	●	●		●		●	●			●		●		●		●	
	Eagle Blue 55D										●				●		●					
	Eagle Red 85 CXF																					
	Eagle Clear 85 QC[‡]					○	○	○		○	○			○	○			○				
	Eagle Red 85 QC					○	○		○		○	○			○			○				
	Eagle Yellow 85 QC[‡]					○		○	○	○				○			○					
	Eagle Clear 85 TOR					●																
	Eagle Ivory 85 SGT*																					
	Eagle Green 89 SGT PVC																					
Eagle Red 90 SGT PVC																						
Eagle White 40D SGT PVC																						
Reinforced Belting	Eagle Opaque 80 R								●		●				●							
	Eagle Orange 85 R[‡]					●	●		●	●	●	●		●	●	●		●	●	●	●	
	Eagle Hyfen 85 R[‡]					●		●	●	●		●		●		●		●		●	●	
	Eagle Ivory 85 R																					
	Eagle Green 89 R																					
	Eagle Green 89 RT					●	●		●	●		●	●		●		●		●		●	
	Eagle Beige 95 R[‡]								●		●				●							
	Eagle Hyfen 95 R[‡]																					
	Eagle Hyfen 85 CXF/CXR																					
	Eagle Ivory 85 RSGT*																					
	Eagle Can Cable^{†,‡}										●											
	Eagle Fabricated Belts	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

R	Reinforced	LCF	Low Coefficient of Friction
T	Textured	CXF	Co-extruded Flat
RT	Reinforced Textured	CXR	Co-extruded Ribbed
QC	Quick-Connect	SGT	SuperGrip Top
TOR	Twisted O-Rings	RSGT	Reinforced SuperGrip Top

* Eagle Ivory 85 SGT and RSGT available with PVC, PU or TPE top surface.
 † Can Cable available in Red 50D LCF, Blue 55D, Blue 55D Aramid, Natural 55D, Green 63D, and Natural 63D.
 ‡ These belts are manufactured from FDA compliant materials except Eagle Can Cable Red 50D LCF.

V Belting

6mm x 4mm	8mm x 5mm	10mm x 4mm T-Top	3L	3L T-Top	3L Crown-Top	3L Twin	Z/10	A/13	AA	A Twin	A/13 Lo-Ridge-Top	A/13 Ridge-Top	A/13 Hi-Ridge-Top	B/17	BB	B/17 Ribbed	B/17 Wing-Top	B/17 Ridge-Top	C/22	C/22 Ribbed	D/32	D/32 Ridge-Top	E/42	E/42 Ribbed	
																									Eagle Blue 80 EC [†]
																									Eagle Clear 80 EC [†]
																								Eagle Opaque 80	
																								Eagle Orange 85 [†]	
																								Eagle Clear 85 [†]	
																								Eagle Ivory 85	
																								Eagle Green 89	
																								Eagle Green 89 T	
																								Eagle Red 90	
																								Eagle Beige 95 [†]	
																								Eagle Clear 95 [†]	
																								Eagle White 40D [†]	
																								Eagle Blue 55D	
																								Eagle Red 85 CXF	
																								Eagle Clear 85 QC [†]	
																									Eagle Red 85 QC
																									Eagle Yellow 85 QC [†]
																									Eagle Clear 85 TOR
																								Eagle Ivory 85 SGT*	
																								Eagle Green 89 SGT PVC	
																								Eagle Red 90 SGT PVC	
																								Eagle White 40D SGT PVC	
																								Eagle Opaque 80 R	
																								Eagle Orange 85 R [†]	
																								Eagle Hyfen 85 R [†]	
																								Eagle Ivory 85 R	
																								Eagle Green 89 R	
																								Eagle Green 89 RT	
																								Eagle Beige 95 R [†]	
																								Eagle Hyfen 95 R [†]	
																								Eagle Hyfen 85 CXF/CXR	
																								Eagle Ivory 85 RSGT*	
																								Eagle Can Cable ^{†,‡}	
																									Eagle Fabricated Belts

Non-Reinforced Belting

Reinforced Belting

Note: Some diameters and cross sections may be subject to minimum orders. Dimensions are for reference only. Flat belting available in Eagle Orange 85. Additional cross sections, colours, and durometers are available. Contact Applications Engineering at ae@fennerdrives.com for design assistance.

EAGLE[®]

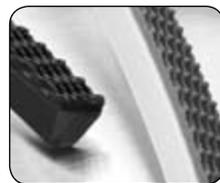
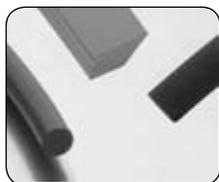
POLYURETHANE BELTING & O-RINGS

The possibilities are endless with Eagle Polyurethane & Polyester Belting and O-Rings from Fenner Drives. As a world leader in belting, we have a comprehensive range of high quality non-reinforced and reinforced products.

From light, medium or heavy duty conveying to custom profiles, Fenner Drives has the right product for your application.

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Part Number Listing

Round Profiles – Non-Reinforced

	Eagle Blue 80 EC	Eagle Clear 80 EC	Eagle Opaque 80	Eagle Orange 85	Eagle Clear 85	Eagle Green 89	Eagle Green 89 T	Eagle Red 90	Eagle Beige 95	Eagle Clear 95	Eagle White 40D	Eagle Blue 55D
3/32"				1032003	4908003					4907003		
1/8"				1032004	4908006					4907006		
3/16"				1032006	4908009			4940022		4907009		
1/4"			4940003	1032008	4908012			4940023		4907012		
5/16"				1032010	4908015					4907015		
3/8"			4940005	1032012	4908018			4940025		4907018		
1/2"			4940011	1032016	4908024			4940026		4907024		
9/16"				1032018	4908027			4940036		4907027		
5/8"				1032020	4908030					4907030		
3/4"				1032024	4908033					4907033		
2mm			L04OP802M	L04OG852M	L04C852M		4905302	4940017				
3mm	4928001	4927001	L04OP803M	L04OG853M	L04C853M		4905303	4940020			L04BY403M	
4mm	4928002	4927002	L04OP804	L04OG854	L04C854		4905304	4940021			L04BY404	
5mm	4928003	4927003	L04OP805M	4940100	L04C855M		4905305	L04R9005M	L04BE955M		L04BY405M	
6mm	4928004	4927004	L04OP806M	L04OG856M	L04C856M		4905306				L04BY406M	
6.3mm	4928005	4927005										
7mm			L04OP807M	L04OG857M	L04C857M		4905307	L04R907				
8mm	4928006	4927006	L04OP808M	L04OG858M	L04C858		4905308	4940024	L04BE958		L04BY408	
9.5mm	4928007	4927007										
10mm	4928008	4927008	L04OP8010M	L04OG8510M	L04C8510M	L04G8910MS	4905310	L04R9010M	L04BE9510M		L04BY4010M	L04BY5510M
12mm				L04OG8512M	L04C8512M	L04G8912MS	4905312	L04R9012M			L04BY4012	
15mm			L04OP8015M			L04G8915MS	4905315	4999315	L04BE9515M		L04BY4015	L04BY5515
18mm			4940013			L04G8918MS	4940091				L04BY4018	L04BY5518
20mm						L04G8920MS	4940092				L04BY4020	

Twisted O-Rings

	Eagle Clear 85
3/16" x 6"	5050003
3/16" x 10"	5050011
3/16" x 10-1/2"	5050015
3/16" x 11"	5050012
3/16" x 11-1/2"	5050911
3/16" x 12"	5050016
3/16" x 12-1/2"	5050005
3/16" x 12-3/4"	5050002
3/16" x 12-7/8"	5050006
3/16" x 13"	5050007
3/16" x 13-1/4"	5050017
3/16" x 13-1/2"	5050009
3/16" x 13-3/4"	5050014
3/16" x 14"	5050008
3/16" x 14-1/2"	5050010

50 pieces per box, packaged with hooks.

Quick-Connect Profiles

	Eagle Clear 85 QC	Eagle Red 85 QC	Eagle Yellow 85 QC
3/16"	4934009		4934021
1/4"	4934012		4934022
5/16"	4934015		4934023
3/8"	4934018		4934025
1/2"	4934024		4934026
5/8"	4934030		4934020
5mm	L04QC855M	L04QR855M	
6mm	L04QC856M	L04QR856M	
8mm	L04QC858M	L04QR858M	
10mm		L04QR8510M	
12mm		L04QR8512M	
13mm	L04QC8513	L04QR8513M	
16mm	L04QC8516M	L04QR8516M	

Quick-Connect Belting packaged with a pack of connectors.

QC Connectors

3/16" and 5mm	4935009	25/pack
1/4" and 6-7mm	L04CON6S	25/pack
5/16" and 8mm	4935015	25/pack
3/8" and 10mm	L04CON10S	20/pack
1/2" and 12-13mm	L04CON13S	20/pack
5/8" and 16mm	4935030	15/pack

Flat Profiles

	Eagle Orange 85
0.055" x .375"	1032121
0.062" x .5"	1032126
0.062" x .75" w/ 0.156" radius guide	1032210
0.062" x 1.5"	1032148
0.062" x 1.75"	1032155
0.062" x 2"	1032160
0.062" x 3"	1032170
0.125" x .625"	1032133
0.125" x 1"	1032143
0.250" x .625"	1032134
0.078" x .75"	1032136
0.090" x 1"	1032142
0.090" x 1.25"	1032146
0.090" x 1.5"	1032151
0.090" x 2"	1032163

All belting sold in 100'/30.5m lengths, except Can Cable (sold in 500' lengths).

May be subject to minimum order. Consult factory for availability.

Dimensions are for reference only.

For technical assistance and drive design help, contact Applications Engineering at 800-243-3374 or ae@fennerdrives.com.

V Profiles – Non-Reinforced

	Eagle Blue 80 EC	Eagle Clear 80 EC	Eagle Opaque 80	Eagle Orange 85	Eagle Clear 85	Eagle Ivory 85	Eagle Green 89	Eagle Red 90	Eagle Beige 95	Eagle Clear 95	Eagle White 40D	Eagle Blue 55D
6mm x 4mm	4928009	4927009	L04OP806X4		L04C850604							
8mm x 5mm	4928010	4927010	4940006					4940027			L04BY400805	
10mm x 4mm T-Top	4928011	4927011										
3L			4940007	1032030	4912063					4911063		
3L T-Top				1032031	4912064					4911064		
3L Crown Top				1032032								
3L Twin				1032033	4912065					4911065		
Z/10			4940008	4940114	4940118	L04I85Z	L04G89Z	4940028			L04BY40Z	L04BY55Z
A/13			4940009	1032038	4912066	L04I85A	L04G89A	4940029	L04BE95A	4911066	L04BY40A	L04BY55A
A/13 Lo-Ridge-Top				1032039	4912067					4911067		
A/13 Ridge-Top				L04OG85AXH	L04C85AXH		L04G89AX					
A/13 Hi-Ridge-Top				1032040	4911102					4911101		
A Twin				1032041	4912068					4911068		
AA				1232550	4912062					4911062		
B/17			4940010	1032047	4912069	L04I85B	L04G89B	4940030	L04BE95B	4911069	L04BY40B	L04BY55B
B/17 Ridge-Top			4940097				L04G89BX					
B/17 Ribbed				1032046								
B/17 Wing-Top				1032048								
BB				1232600	4912070					4911070		
C/22			4940015	1032072	4912072	L04I85C	L04G89C	4999306	L04BE95C	4911072	L04BY40C	L04BY55C
C/22 Ridge-Top 24.5mm			4999557				4999514					
C/22 Ridge-Top 28.5mm			4940099				L04G89CX					
C/22 Ribbed				1032054								
D/32 Ribbed				1032062	4908077					4911077		
E/42 Ribbed				1032070								

SGT V Profiles – Non-Reinforced

	Eagle Ivory 85 SGT PU	Eagle Ivory 85 SGT PVC	Eagle Ivory 85 SGT TPE	Eagle Green 89 SGT PVC	Eagle Red 90 SGT PVC	Eagle White 40D SGT PVC
A/13	493030030M	L04I85ASG	493120030M	L04G89ASG	L04R90ASG	L04BY40ASG
B/17	493040030M	L04I85BSG	493130030M	L04G89BSG	L04R90BSG	L04BY40BSG
C/22	493050030M	L04I85CSG	493140030M	L04G89CSG	L04R90CSG	L04BY40CSG

Co-Extruded V Profiles – Non-Reinforced

	Eagle Red 85 CXF
A/13	4924320
B/17	4924330
C/22	4924345

All belting sold in 100'/30.5m lengths, except Can Cable (sold in 500' lengths).

May be subject to minimum order. Consult factory for availability.

Dimensions are for reference only.

For technical assistance and drive design help, contact Applications Engineering at 800-243-3374 or ae@fennerdrives.com.

Part Number Listing

Round Profiles – Reinforced

	Eagle Opaque 80 R	Eagle Orange 85 R	Eagle Hyfen 85 R	Eagle Green 89 RT	Eagle Beige 95 R	Eagle Can Cable
3/16"			5218009			
1/4"		4940058	5218012			
5/16"		4940059	5218015			
3/8"		4940060	5218018			
1/2"		4940061	5218024			
9/16"		4940062	5218027			
5/8"		4940063	5218030			
3/4"		4940064	5218033			
5mm				4940056		
6mm		L04OG856MR		4940057		
7mm				4940050		
8mm	L04OP808MR	L04OG858R		4940051	L04BE958R	
10mm	L04OP8010MR	L04OG8510MR		4940052	L04BE9510R	
12mm		L04OG8512R		4940053		
15mm	L04OP8015MR	L04OG8515MR		4940054	L04BE9515R	
18mm				4940055		
20mm		L04OG8520R				
3/8" Natural 55D CC						4816018
3/8" Blue 55D CC						4816019
3/8" Green 63D CC						4817018
3/8" Natural 63D CC						4899006
3/8" Red 50D CC LCF						4816020
9.5mm Blue 55D Aramid CC						4899012

V Profiles – Reinforced

	Eagle Opaque 80 R	Eagle Orange 85 R	Eagle Hyfen 85 R	Eagle Ivory 85 R	Eagle Green 89 R	Eagle Beige 95 R	Eagle Hyfen 95 R
3L						4940070	
3L Twin			5299010				
Z/10		4940065		L04I85ZR		4940074	
A							5260200
A/13	L04OP80AR	4940066		L04I85AR	L04G89AR	4940075	
A Cogged							5220000
A/13 Cogged						4940071	
A/13 Ridge-Top	L04OP80ARXH		5299007	L04I85ARXH	L04G89ARXH		
A Twin			5299019				
B							5260300
B/17	L04OP80BR	4940067		L04I85BR	4940127	4940076	
B Cogged							5230000
B/17 Cogged						4940072	
B/17 Ridge-Top	L04OP80BRXH		5299009	L04I85BRXH	L04G89BRXH		
C							5260400
C/22		4940068		L04I85CR	L04G89CR	4940077	
C Cogged							5240000
C/22 Cogged						4940073	
C/22 Ridge-Top 24.5mm				5299103	4999524		
C/22 Ridge-Top 28.5mm				L04I85CRXH	L04G89CRXH		
D			5260500				

SGT V Profiles – Reinforced

	Eagle Ivory 85 RSGT PU	Eagle Ivory 85 RSGT PVC	Eagle Ivory 85 RSGT TPE
A/13	493060030M	L04I85ARSG	493150030M
B/17	493020030M	L04I85BRSG	493160030M
C/22	493070030M	L04I85CRSG	493170030M

Co-Extruded V Profiles – Reinforced

	Eagle Hyfen 85 CXF	Eagle Hyfen 85 CXR
A	5260520	5260525
A Twin	5260572	5260577
B	5260530	5260535
C	5260540	5260545
D	5260550	5260555

Part Number Listing

Eagle Welding Kits

Butt Welding Kit & Components – 115 V

5700200	Butt Welding Kit 115 V (Large Clamp)
5700231	Mini Butt Welding Kit 115 V (Mini Clamp)
5700201	Butt Welding Clamp
5700227	Mini Clamp
5700228	Hot Knife 115 V with holder and 2" blade
5700220	Double Iron Hot Knife 115 V with holder and 3" blade
5700202	Hot Knife Holder
5700233	Hot Knife Blade – 2"
5700218	Hot Knife Blade – 3" (Use with 5700220)
5700153	Cutting Shears
1448000	Flash Cutter
5700208	Clamping Plate (2 pcs)
5700209	Flat/V-belt adapter Plate (2 pcs)
5700212	Black Knurled Knob (5 pcs)
5700203	Case

Butt Welding Kit & Components – 240 V

L04FULLWELD240V	Butt Welding Kit 240 V (Large Clamp)
L04MINIWELD240V	Mini Butt Welding Kit 240 V (Mini Clamp)
5700201	Butt Welder Clamp
L04MCLAMP	Mini Clamp
L04HKNIFE240	Hot Knife 240 V
L04SHEARS	Cutting Shears
L04FCUTTER	Flash Cutter
L04S	Hot Knife Blade – 2"
L04CASEBKST	Case (Large Clamp)
L04CASEBLM	Case (Mini Clamp)

Freestyle Welding Kit & Components

5700539	Freestyle Welding Kit
5700537	Freestyle Welder
5700366	Freestyle Welder Blade Assembly
5700367	Freestyle Welder End Cap
5700542	Blade Replacement Tape 10/pk
5700541	Pack of 2 D cell NiMH batteries
5700153	Cutting Shears
1448000	Flash Cutter

Overlap Welding Kit & Components

5700160K	Overlap Welding Kit 115V
5700161K	Overlap Welding Kit 240V
5700152	Flash Cutter
5700164	Case
5700300	Temperature Controller w/Control Box 115 V
5700310	Temperature Controller w/Control Box 240 V
5700325	Heating Tip (Z Block)
5700330	Thumb Nuts
5700340	Hold Down Pin
5700350	Thermocouple Wire
5700355	Thermocouple Connector
5700360	Heating Element, Power Cord and Plug 115 V
5700361	Heating Element, Power Cord and Plug 240 V
5700351	Plug Adapter – UK to EU
5700380	Spring
5700390	Heating Assembly Knob
5700400	1/4" and 5/16" Die Set
5700410	3/8" and 1/2" Die Set
5700420	9/16", 5/8" and 16mm Die Set
5700430	3/4" and 19mm Die
5700600	5mm Die
5700601	6mm Die
5700602	7mm Die
5700603	8mm Die
5700604	9mm Die
5700605	10mm Die
5700606	12mm Die
5700608	18mm Die
5700620	20mm Die
5700610	Z/10 Die Set
5700440	A Hyfen Die Set
5700611	A/13 Die Set
5700470	A Ridge–Top Die Set
5700453	B Hyfen Die Set
5700612	B/17 Die Set
5700490	B Ridge–Top Die Set
5700457	C Hyfen Die Set
5700613	C/22 Die Set
5700460	D Hyfen Die Set
5700480	A Die Set for Hyfen CXF and CXR
5700472	B Die Set for Hyfen CXF and CXR
5700476	C Die Set for Hyfen CXF and CXR
5700474	D Die Set for Hyfen CXF and CXR

Overlap Welder availability may be subject to minimum purchase of reinforced belting. Consult factory for details.

Technical Data

Eagle Blue 80 EC Eagle Clear 80 EC

DESCRIPTION
Round, Non-Reinforced



HARDNESS
80A
FDA COMPLIANT MATERIALS
Yes

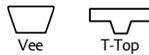
COEFFICIENT OF FRICTION
Stainless Steel .80
Steel .70
UHMW .55

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3mm	3	0.83	21	0.4	1.7	0.6	2.5	0.8	3.5	1.0	4.3	.005	.008
4mm	4	1.10	28	0.6	2.8	0.9	4.2	1.3	5.6	1.5	6.7	.009	.014
5mm	5	1.38	35	0.9	4.2	1.4	6.3	1.9	8.4	2.4	10.6	.015	.022
6mm	6	1.65	42	1.3	5.9	2.1	9.1	2.8	12.3	3.4	15.2	.021	.032
6.3mm	¼	6.3	44	1.5	6.6	2.3	10.2	3.1	13.7	3.8	17.0	.023	.035
8mm	8	2.20	56	2.4	10.5	3.6	16.2	4.8	21.5	6.1	26.9	.038	.056
9.5mm	¾	9.5	67	3.4	15.0	5.2	23.2	7.0	31.0	8.7	38.7	.053	.079
10mm	10	2.76	70	3.7	16.4	5.8	25.6	7.7	34.1	9.6	42.6	.059	.088

Eagle Blue 80 EC Eagle Clear 80 EC

DESCRIPTION
Trapezoidal,
Non-Reinforced



HARDNESS
80A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .80
Steel .70
UHMW .55

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

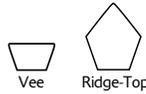
Cross Section	Dimensions w x h* (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
6mm x 4mm	6 x 4	1.10	28	0.8	3.7	1.5	6.7	2.1	9.4	2.7	12.1	.015	.023
8mm x 5mm	8 x 5	1.38	35	1.3	5.7	2.4	10.5	3.3	14.6	4.2	18.9	.024	.035
10mm x 4mm T-Top	10 x 4	1.10	28	1.0	4.6	1.9	8.5	2.7	11.8	3.4	15.3	.019	.028

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

*w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface. Dimensions are for reference only.

Eagle Opaque 80DESCRIPTION
Round, Non-ReinforcedHARDNESS
80A
FDA COMPLIANT MATERIALS
NoCOEFFICIENT OF FRICTION
Stainless Steel .75
Steel .65
UHMW .50TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
			4%		6%		8%		10%			
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
2mm	2	.56 14	0.2	0.8	0.4	1.8	0.5	2.2	0.6	2.7	.003	.004
3mm	3	.81 21	0.5	2.2	0.8	3.6	1.1	4.9	1.4	6.2	.006	.009
4mm	4	1.19 30	0.8	3.6	1.4	6.2	2.0	8.9	2.5	11.1	.01	.015
5mm	5	1.38 35	1.3	5.8	2.2	9.8	3.1	13.8	3.9	17.3	.02	.03
6mm	6	1.63 42	1.8	8.0	3.0	13.3	4.2	18.6	5.3	23.4	.025	.04
1/4"	1/4	6.3 44	1.8	8.0	3.0	13.3	4.2	18.6	5.3	23.4	.03	.04
7mm	7	1.93 49	2.6	11.4	4.3	19.1	6.0	26.3	7.6	33.7	.03	.04
8mm	8	2.25 56	3.3	14.7	5.6	24.9	7.8	34.0	9.9	44.0	.04	.06
3/8"	3/8	9.5 67	4.0	17.6	6.7	29.9	9.4	34.7	11.9	52.7	.06	.09
10mm	10	2.75 70	5.2	23.1	8.8	39.1	12.3	54.7	15.4	68.5	.07	.10
1/2"	1/2	12.5 89	7.0	31.3	12.0	53.2	16.7	74.4	21.1	93.7	.10	.15
15mm	15	4.13 105	11.6	51.6	19.7	87.6	27.6	122.8	34.7	154.3	.14	.21
18mm	18	5.00 126	16.7	74.3	28.4	126.3	39.7	176.6	50.0	222.4	.22	.33

Eagle Opaque 80DESCRIPTION
Trapezoidal, Non-ReinforcedHARDNESS
80A
FDA COMPLIANT MATERIALS
NoCOEFFICIENT OF FRICTION
Stainless Steel .75
Steel .65
UHMW .50TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
			4%		6%		8%		10%			
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
6mm x 4mm	6 x 4	1.10 28	0.8	3.6	1.6	7.1	2.6	12.7	3.6	17.1	.02	.03
8mm x 5mm	8 x 5	1.38 35	1.7	7.6	3.6	16.0	5.7	25.4	7.7	34.2	.02	.03
3L	3/8 x 7/32	1.50 39	2.3	10.2	4.7	20.9	7.5	33.4	10.2	45.4	.03	.05
Z/10	10 x 6.5	1.63 42	2.7	12.0	5.6	24.9	8.9	39.6	12.1	53.8	.05	.07
A/13	1/2 x 5/16	13 x 8	2.25 56	4.2 18.7	8.8 39.1	14.0 62.3	19.0 84.5	.07 .10				
B/17	1 1/16 x 1 3/32	17 x 11.5	3.00 76	7.3 32.5	15.2 67.6	24.2 107.6	32.8 145.9	.11 .16				
B/17 Ridge-Top		17 x 19.5	5.50 140	7.3 32.5	15.2 67.6	24.2 107.6	32.8 145.9	.13 .19				
C/22	2 9/32 x 1 7/32	22 x 14.5	3.88 98	12.7 56.5	26.7 118.8	42.5 189.0	57.6 256.2	.19 .28				
C/22 Ridge-Top		22 x 24.5	7.75 196	12.7 56.5	26.7 118.8	42.5 189.0	57.6 256.2	.28 .41				
C/22 Ridge-Top		22 x 28.5	7.75 196	12.7 56.5	26.7 118.8	42.5 189.0	57.6 256.2	.32 .47				

Technical Data

Eagle Orange 85 Eagle Clear 85

DESCRIPTION
Round, Non-Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

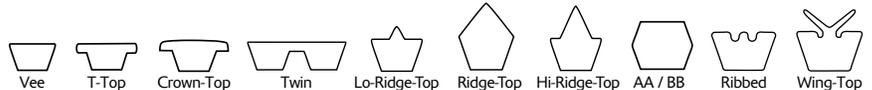
COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)	
			4%		6%		8%		10%				
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)			
2mm	2	.63	16	0.2	0.9	0.3	1.3	0.4	1.8	0.5	2.2	.003	.004
3/32"	3/32	.75	19	0.2	0.9	0.3	1.3	0.4	1.8	0.5	2.2	.004	.006
3mm	3	.94	24	0.5	2.2	0.7	3.1	1.0	4.4	1.2	5.3	.006	.009
4mm	4	1.25	32	0.8	3.6	1.2	5.3	1.6	7.1	1.9	8.5	.01	.015
3/16"	3/16	1.50	38	1.1	4.9	1.7	7.6	2.2	9.8	2.7	12.0	.01	.015
5mm	5	1.56	40	1.2	5.3	1.8	8.0	2.4	10.7	3.0	13.3	.02	.03
6mm	6	1.88	48	1.7	7.6	2.6	11.6	3.5	15.6	4.3	19.1	.025	.04
1/4"	1/4	2.00	51	1.9	8.5	2.9	12.9	3.9	17.3	4.8	21.4	.03	.04
7mm	7	2.20	56	2.4	10.4	3.6	16.1	4.8	21.4	6.0	26.5	.03	.04
5/16"	5/16	2.50	64	3.0	13.3	4.6	20.5	6.1	27.1	7.6	33.8	.04	.06
8mm	8	2.50	64	3.0	13.3	4.6	20.5	6.1	27.1	7.6	33.8	.04	.06
3/8"	3/8	3.00	76	4.3	19.1	6.6	29.4	8.8	39.1	10.9	48.5	.06	.09
10mm	10	3.13	80	4.7	20.9	7.3	32.5	9.7	43.1	12.0	53.4	.07	.10
12mm	12	3.75	96	6.8	30.5	10.6	47.3	14.1	62.9	17.4	77.4	.09	.13
1/2"	1/2	4.00	102	7.6	33.8	11.8	52.5	15.7	69.8	19.3	85.8	.10	.15
9/16"	9/16	4.50	114	9.7	43.1	14.9	66.3	19.9	88.5	24.5	109.0	.13	.19
5/8"	5/8	5.00	127	11.9	52.9	18.4	81.8	24.5	109.0	30.2	134.3	.16	.24
3/4"	3/4	6.00	152	17.7	78.7	26.5	117.9	35.3	157.0	43.5	193.5	.23	.34

Eagle Orange 85 Eagle Clear 85

DESCRIPTION
Trapezoidal,
Non-Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)		
			4%		6%		8%		10%					
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)				
6mm x 4mm	6 x 4	1.25	32	0.9	4.0	1.6	7.1	2.2	9.8	2.8	12.5	.02	.03	
3L	3/8 x 7/32	1.75	45	2.2	9.8	3.7	16.5	5.2	23.1	6.5	28.9	.03	.04	
3L T-Top	9/16 x 19/64	2.38	60	3.2	14.2	5.5	24.5	7.7	34.2	9.7	43.1	.05	.07	
3L Crown-Top	9/16 x 1/4	2.00	51	3.2	14.2	5.5	24.5	7.7	34.2	9.7	43.1	.05	.07	
3L Twin	15/16 x 17/64	2.13	54	6.1	27.1	10.3	45.8	14.5	64.5	18.4	81.8	.10	.15	
Z/10	10 x 6.5	1.88	48	2.4	10.7	4.1	18.2	5.8	25.8	7.3	32.5	.05	.07	
A/13	1/2 x 5/16	2.50	64	4.0	17.8	6.8	30.2	9.6	42.7	12.2	54.3	.07	.10	
A/13 Lo-Ridge-Top	1/2 x 7/16	2.50	64	4.0	17.8	6.8	30.2	9.6	42.7	12.2	54.3	.07	.10	
A/13 Ridge-Top	13 x 16	5.00	127	4.0	17.8	6.8	30.2	9.6	42.7	12.2	54.3	.09	.13	
A/13 Hi-Ridge-Top	1/2 x 5/8	5.00	127	6.7	29.8	11.3	50.3	15.9	70.7	20.1	89.4	.09	.13	
A Twin	1 3/16 x 5/16	2.50	64	8.2	36.5	14.0	62.3	19.6	87.2	24.8	110.3	.15	.22	
AA	1/2 x 13/32	3.25	83	5.8	25.8	9.8	43.6	13.7	60.9	17.4	77.4	.09	.13	
B/17	11/16 x 13/32	3.25	83	7.0	31.1	11.8	52.5	16.6	73.8	21.0	93.4	.11	.16	
B/17 Ribbed	11/16 x 13/32	3.25	83	7.0	31.1	11.8	52.5	16.6	73.8	21.0	93.4	.11	.16	
B/17 Wing-Top	11/16 x 5/8	3.25	83	7.0	31.1	11.8	52.5	16.6	73.8	21.0	93.4	.11	.16	
BB	11/16 x 9/16	4.25	108	8.8	39.1	14.9	66.3	20.9	93.0	26.5	117.9	.16	.24	
C/22	29/32 x 17/32	22 x 14.5	4.50	114	12.1	53.8	20.6	91.6	28.9	128.5	36.6	162.8	.19	.28
C/22 Ribbed	29/32 x 17/32	4.50	114	12.1	53.8	20.6	91.6	28.9	128.5	36.6	162.8	.19	.28	
D/32 Ribbed	1 5/16 x 3/4	7.00	178	25.2	112.1	42.7	189.9	59.9	266.4	75.8	337.2	.38	.57	
E/42 Ribbed	1 11/16 x 1 3/32	15.00	381	47.8	212.6	81.1	360.7	113.9	505.9	144.0	640.5	.71	1.06	

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

* w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface.

Dimensions are for reference only.

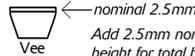
Eagle Orange 85

DESCRIPTION
Flat, Non-ReinforcedHARDNESS
85A
FDA COMPLIANT MATERIALS
YesCOEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
.055"x.375"	3/8 x 7/128	.38	10	0.9	3.9	1.3	5.8	1.7	7.6	2.1	9.3	.01	.015
.062"x.500"	1/2 x 1/16	.50	13	1.3	5.9	2.0	8.8	2.6	11.5	3.1	13.9	.02	.03
.062"x.750"	3/4 x 1/16	1.00	25	2.0	8.8	3.0	13.2	3.9	17.2	4.7	20.9	.03	.04
.062"x1.50"	1 1/2 x 1/16	.50	13	4.0	17.6	5.9	26.4	7.8	34.5	9.4	41.8	.05	.07
.062"x1.75"	1 3/4 x 1/16	.50	13	4.6	20.5	6.9	30.8	9.0	40.2	11.0	48.8	.06	.09
.062"x2.00"	2 x 1/16	.50	13	5.3	23.5	7.9	35.2	10.3	46.0	12.5	55.8	.07	.10
.062"x3.00"	3 x 1/16	.50	13	7.9	35.2	11.9	52.7	15.5	68.9	18.8	83.7	.10	.15
.125"x.625"	5/8 x 1/8	1.00	25	3.3	14.8	5.0	22.2	6.5	29.0	7.9	35.1	.04	.06
.125"x1.00"	1 x 1/8	1.00	25	5.3	23.6	8.0	35.4	10.4	46.3	12.6	56.2	.07	.10
.250"x.625"	5/8 x 1/4	2.00	51	6.6	29.6	10.0	44.3	13.0	57.9	15.8	70.3	.08	.12
.078"x.750"	3/4 x 5/64	.63	16	2.5	11.1	3.7	16.6	4.9	21.7	5.9	26.3	.03	.04
.090"x1.00"	1 x 3/32	.75	19	3.8	17.0	5.7	25.5	7.5	33.4	9.1	40.5	.05	.07
.090"x1.25"	1 1/4 x 3/32	.75	19	4.8	21.3	7.2	31.9	9.4	41.7	11.4	50.6	.06	.09
.090"x1.50"	1 1/2 x 3/32	.75	19	5.7	25.5	8.6	38.3	11.3	50.0	13.7	60.7	.07	.10
.090"x2.00"	2 x 3/32	.75	19	7.7	34.1	11.5	51.0	15.0	66.7	18.2	81.0	.09	.13

**belt has .156" radius guide.

Eagle Red 85 CXF

DESCRIPTION
Trapezoidal, Non-Reinforced
with Co-Extruded Flat Top← nominal 2.5mm
Add 2.5mm nominal to listed height for total belt height.HARDNESS
85A Base, 60A Top
FDA COMPLIANT MATERIALS
NoCOEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)		Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					4%		6%		8%		10%			
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)			
A/13	1/2 x 5/16	13 x 8	3.00	76	4.7	20.9	7.4	32.9	10.1	44.9	12.5	55.6	.07	.10
B/17	1 1/16 x 13/32	17 x 11.5	4.00	102	8.0	35.6	12.6	56.0	17.1	76.1	21.4	95.2	.11	.16
C/22	2 9/32 x 17/32	22 x 14.5	5.00	127	14.0	62.3	22.1	98.3	30.0	133.4	37.4	166.4	.19	.28

Eagle Clear 85 QC
Eagle Red 85 QC
Eagle Yellow 85 QCDESCRIPTION
Round, Hollow,
Non-ReinforcedHARDNESS
85A
FDA COMPLIANT MATERIALS
All except RedCOEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions O.D. x I.D.† (inches or mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3/16"	.1875" x .080"	2.00	51	0.5	2.2	0.7	3.1	0.9	4.0	1.1	4.9	.01	.015
5mm	5mm x 2mm	2.00	51	0.5	2.2	0.7	3.1	0.9	4.0	1.1	4.9	.01	.015
6mm	6mm x 2.5mm	2.50	64	0.8	3.6	1.3	5.8	1.7	7.6	2.1	9.3	.02	.03
1/4"	.25" x .098"	2.50	64	0.8	3.6	1.3	5.8	1.7	7.6	2.1	9.3	.02	.03
5/16"	.3125" x .126"	3.00	76	1.3	5.8	2.0	8.9	2.7	12.0	3.3	14.7	.03	.04
8mm	8mm x 3.2mm	3.00	76	1.3	5.8	2.0	8.9	2.7	12.0	3.3	14.7	.03	.04
3/8"	.375" x .152"	3.50	89	1.8	8.0	2.9	12.9	3.8	16.9	4.7	20.9	.05	.07
10mm	10mm x 3.8mm	3.50	89	1.8	8.0	2.9	12.9	3.8	16.9	4.7	20.9	.05	.07
12mm	12mm x 5.2mm	3.75	95	3.3	14.7	5.1	22.7	6.8	30.2	8.4	37.4	.09	.13
1/2"	.500" x .214"	4.50	114	3.3	14.7	5.1	22.7	6.8	30.2	8.4	37.4	.09	.13
13mm	13mm x 5.2mm	4.50	114	3.3	14.7	5.1	22.7	6.8	30.2	8.4	37.4	.09	.13
5/8"	.625" x .273"	5.50	140	5.0	22.2	7.7	34.2	10.3	45.8	18.6	82.7	.13	.19
16mm	16mm x 6.8mm	5.50	140	5.0	22.2	7.7	34.2	10.3	45.8	18.6	82.7	.13	.19

† O.D. is the outer diameter of the belt. I.D. is the inner diameter of the belt.

Technical Data

Eagle Ivory 85 Eagle Ivory 85 SGT

DESCRIPTION
Trapezoidal, Non-Reinforced
SGT with Integrally Bonded Top



← nominal 5mm
Add 5mm nominal to listed
height for total belt height.

HARDNESS
85A; SGT with 50A PVC Top,
55A TPE Top or
70A PU Top

FDA COMPLIANT
MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)		Weight per metre (kg)			
		(in) (Ivory 85)	(mm) (SGT)	(in) (Ivory 85)	(mm) (SGT)	4% (N)		6% (N)		8% (N)		10% (N)		(Ivory 85)	(SGT)	(Ivory 85)	(SGT)
Z/10	10 x 6.5	2.00	—	52	—	7.1	31.7	10.9	48.4	14.3	63.7	17.3	77.0	.05	—	.07	—
A/13	1/2 x 5/16 13 x 8	2.50	3.00	64	76	11.4	50.7	17.4	77.4	22.9	101.9	27.7	123.2	.07	.08	.10	.12
B/17	11/16 x 13/32 17 x 11.5	3.60	4.10	92	104	20.2	89.8	30.9	137.4	40.6	180.6	49.1	218.4	.11	.12	.16	.18
C/22	29/32 x 17/32 22 x 14.5	4.50	5.00	116	127	33.5	149.0	51.1	227.3	67.1	298.5	81.3	361.6	.19	.20	.28	.30

Eagle Green 89 Eagle Green 89 T

DESCRIPTION
Round, Smooth or Textured,
Non-Reinforced



HARDNESS
89A
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .65
Steel .55
UHMW .40

COEFFICIENT OF FRICTION
(Textured)
Stainless Steel .50
Steel .40
UHMW .30

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)		Weight per metre (kg)	
		(in)	(mm)	4% (N)		6% (N)		8% (N)		10% (N)		(lbs)	(kg)	(lbs)	(kg)
2mm	2	.75	19	0.2	0.9	0.4	1.8	0.5	2.2	0.7	3.1	.003	.004		
3mm	3	1.00	27	0.6	2.7	0.9	4.0	1.2	5.3	1.5	6.7	.006	.009		
4mm	4	1.44	36	1.0	4.4	1.6	7.1	2.1	9.3	2.6	11.6	.01	.015		
5mm	5	1.75	45	1.5	6.7	2.4	10.7	3.3	14.7	4.1	18.2	.02	.03		
6mm	6	2.13	54	2.2	9.8	3.5	15.6	4.7	20.9	5.9	26.2	.025	.04		
7mm	7	2.50	63	3.0	13.3	4.7	20.9	6.4	28.5	8.0	35.6	.03	.04		
8mm	8	2.83	72	3.9	17.3	6.2	27.6	8.4	37.4	10.4	46.3	.04	.06		
10mm	10	3.50	90	6.1	27.1	9.7	43.1	13.1	58.3	16.3	72.5	.07	.10		
12mm	12	4.25	108	8.7	38.7	13.9	61.8	18.9	84.1	23.5	104.5	.09	.13		
15mm	15	5.25	135	13.6	60.5	21.7	96.5	29.6	131.7	36.6	162.8	.14	.21		
18mm	18	6.38	162	18.8	83.6	30.9	137.4	42.5	189.0	53.0	235.7	.22	.33		
20mm	20	7.00	180	23.2	103.2	38.2	169.9	52.4	233.1	65.5	291.3	.23	.34		

Eagle Green 89 Eagle Green 89 SGT

DESCRIPTION
Trapezoidal, Non-Reinforced
SGT With Integrally Bonded Top



← nominal 5mm
Add 5mm nominal to listed
height for total belt height.

HARDNESS
89A; SGT with 50A PVC Top
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .65
Steel .55
UHMW .40

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)		Weight per metre (kg)			
		(in) (Green 89)	(mm) (SGT)	(in) (Green 89)	(mm) (SGT)	4% (N)		6% (N)		8% (N)		10% (N)		(Green 89)	(SGT)	(Green 89)	(SGT)
Z/10	10 x 6.5	2.30	—	59	—	11.9	52.9	18.2	80.9	23.8	105.9	28.7	127.7	.05	—	.07	—
A/13	1/2 x 5/16 13 x 8	2.80	3.30	72	84	20.5	91.2	31.3	139.2	41.0	182.4	49.5	220.2	.07	.08	.10	.12
A/13 Ridge-Top	13 x 16	5.70	—	144	—	20.5	91.2	31.3	139.2	41.0	182.4	49.5	220.2	.09	—	.13	—
B/17	11/16 x 13/32 17 x 11.5	4.10	4.60	104	117	36.4	161.9	55.6	247.3	72.7	323.4	87.7	390.1	.11	.12	.16	.18
B/17 Ridge-Top	17 x 19.5	7.00	—	180	—	36.4	161.9	55.6	247.3	72.7	323.4	87.7	390.1	.13	—	.19	—
C/22	29/32 x 17/32 22 x 14.5	5.10	5.60	130	142	61.7	274.4	94.3	419.4	123.4	548.9	148.8	661.9	.19	.20	.28	.30
C/22 Ridge-Top	22 x 24.5	8.70	—	220	—	61.7	274.4	94.3	419.4	123.4	548.9	148.8	661.9	.28	—	.41	—
C/22 Ridge-Top	22 x 28.5	8.70	—	220	—	61.7	274.4	94.3	419.4	123.4	548.9	148.8	661.9	.32	—	.47	—

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

* w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface.

Dimensions are for reference only.

Eagle Red 90DESCRIPTION
Round, Non-ReinforcedHARDNESS
90A
FDA COMPLIANT MATERIALS
NoCOEFFICIENT OF FRICTION
Stainless Steel .60
Steel .50
UHMW .38TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)	
			4%		6%		8%		10%				
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)			
2mm	2	.75	20	1.1	4.7	1.5	6.7	1.9	8.5	2.2	9.9	.003	.004
3mm	3	1.19	30	2.4	10.5	3.4	15.2	4.3	19.1	5.0	22.3	.006	.009
4mm	4	1.56	40	4.2	18.7	6.1	26.9	7.6	33.9	8.9	39.7	.01	.015
5mm	5	1.88	47	6.0	26.5	8.6	38.2	10.8	48.1	12.6	56.2	.01	.015
3/16"	3/16	1.88	47	6.0	26.5	8.6	38.2	10.8	48.1	12.6	56.2	.01	.015
1/4"	1/4	6.3	70	10.6	47.1	15.3	67.9	19.2	85.4	22.5	100.0	.03	.04
7mm	7	2.75	70	13.7	61.0	19.8	87.8	24.9	110.5	29.1	129.4	.03	.04
8mm	8	3.13	80	16.8	74.8	24.2	107.7	30.5	135.6	35.7	158.7	.04	.06
3/8"	3/8	9.5	95	23.8	106.0	34.3	152.7	43.2	192.2	50.6	224.9	.06	.09
10mm	10	3.94	100	28.9	123.1	39.9	177.4	50.2	223.3	58.8	261.3	.07	.10
12mm	12	4.72	120	37.8	168.3	54.5	242.5	68.6	305.2	80.3	357.2	.09	.14
1/2"	1/2	12.5	127	42.4	188.5	61.0	271.5	76.8	341.7	89.9	399.9	.10	.15
9/16"	9/16	5.63	143	50.8	225.7	73.1	352.2	92.0	409.2	107.7	478.9	.13	.19
15mm	15	5.90	150	59.1	262.9	85.2	378.8	107.2	476.7	125.4	557.8	.14	.21

**Eagle Red 90
Eagle Red 90 SGT**DESCRIPTION
Trapezoidal, Non-Reinforced;
SGT with Integrally Bonded Top← nominal 5mm
Add 5mm nominal to listed
height for total belt height.HARDNESS
90A; SGT with 50A PVC Top
FDA COMPLIANT MATERIALS
NoCOEFFICIENT OF FRICTION
Stainless Steel .60
Steel .50
UHMW .38TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (Red 90)	Minimum Pulley Ø (mm) (SGT)	Working Load @ Percent Tension								Weight per foot (lbs) (Red 90)	Weight per foot (lbs) (SGT)	Weight per metre (kg) (Red 90)	Weight per metre (kg) (SGT)		
				4%		6%		8%		10%							
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)						
8mmx5mm	8 x 5	2.00	—	50	—	9.5	42.1	15.0	66.8	19.9	88.7	24.0	106.9	.02	—	.03	—
Z/10	10 x 6.5	2.50	—	65	—	14.8	65.8	23.4	104.3	31.1	138.5	37.5	167.0	.05	—	.07	—
A/13	1/2 x 5/16 13 x 8	3.13	4.13	80	105	24.1	107.0	38.1	169.5	50.6	225.3	61.0	271.5	.07	.08	.10	.12
B/17	1 1/16 x 13/32 17 x 11.5	4.50	5.50	115	140	43.9	195.2	69.5	309.3	92.4	411.0	111.3	495.3	.11	.12	.16	.18
C/22	29/32 x 17/32 22 x 14.5	5.75	6.75	145	172	72.2	321.2	114.4	508.9	152.0	676.2	183.2	814.9	.19	.20	.28	.30

Eagle Beige 95DESCRIPTION
Round, Non-ReinforcedHARDNESS
95A
FDA COMPLIANT MATERIALS
YesCOEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)	
			4%		6%		8%		10%				
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)			
5mm	5	2.00	50	5.3	23.6	7.5	33.4	9.4	41.8	11.0	48.8	.02	.03
8mm	8	3.10	80	13.6	60.5	19.2	85.6	24.0	106.9	28.1	125.1	.04	.06
10mm	10	3.90	100	21.2	94.5	30.1	133.8	37.6	167.1	43.9	195.4	.07	.10
15mm	15	5.90	150	47.8	212.5	67.7	301.0	84.5	375.9	98.8	439.6	.14	.21

Technical Data

Eagle Beige 95

DESCRIPTION
Trapezoidal,
Non-Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)		Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					4%		6%		8%		10%			
					(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
A/13	1/2 x 5/16	13 x 8	3.10	80	16.8	74.7	25.2	112.1	32.5	144.6	38.9	173.0	.07	.10
B/17	1 1/16 x 1 3/32	17 x 11.5	4.50	115	29.9	133.0	44.6	197.9	57.7	256.6	69.1	307.4	.11	.16
C/22	2 9/32 x 1 7/32	22 x 14.5	5.70	145	49.4	219.7	73.9	328.7	95.4	424.3	114.3	508.4	.19	.28

Eagle Clear 95

DESCRIPTION
Round, Non-Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)		Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					4%		6%		8%		10%			
					(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3/32"	3/32		1.00	25	0.7	3.1	1.2	5.3	1.5	6.7	1.9	5.3	.004	.006
1/8"	1/8		1.25	32	0.9	4.0	1.4	6.2	1.7	7.6	2.1	6.2	.01	.015
3/16"	3/16		1.88	48	2.0	8.9	3.0	13.3	3.9	17.3	4.6	13.3	.01	.015
1/4"	1/4	6.3	2.50	64	3.6	16.0	5.4	24.0	6.9	30.7	8.2	24.0	.03	.04
5/16"	5/16		3.13	79	5.7	25.4	8.4	37.4	10.8	48.0	12.9	37.4	.04	.06
3/8"	3/8	9.5	3.75	95	8.2	36.5	12.1	53.8	15.6	69.4	18.5	53.8	.06	.09
1/2"	1/2	12.5	5.00	127	14.5	64.5	21.6	96.1	27.7	123.2	32.9	96.1	.10	.15
9/16"	9/16		5.63	143	18.4	81.8	27.3	121.4	35.0	155.7	41.7	121.4	.13	.19
5/8"	5/8		6.25	159	22.7	101.0	33.7	149.9	43.3	192.6	51.4	149.9	.16	.24
3/4"	3/4		7.50	190	32.7	145.4	48.5	215.7	62.3	277.1	74.1	215.7	.23	.34

Eagle Clear 95

DESCRIPTION
Trapezoidal,
Non-Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)		Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					4%		6%		8%		10%			
					(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3L	3/8 x 7/32		2.19	56	4.1	18.2	6.6	29.4	8.9	39.6	10.8	48.0	.03	.04
3L T-Top	9/16 x 1 9/64		2.50	64	6.1	27.1	9.9	44.0	13.3	59.2	16.2	72.1	.05	.07
3L Twin	1 5/16 x 1 7/64		2.50	64	11.4	50.7	18.6	82.7	25.0	111.2	30.5	135.7	.10	.15
A/13	1/2 x 5/16	13 x 8	3.13	79	7.6	33.8	12.3	54.7	16.6	73.8	20.2	89.8	.07	.10
A/13 Lo-Ridge-Top	1/2 x 7/16		3.13	79	7.6	33.8	12.3	54.7	16.6	73.8	20.2	89.8	.07	.10
A/13 Hi-Ridge-Top	1/2 x 5/8		6.00	152	12.5	55.6	20.3	90.3	27.4	121.9	33.4	148.6	.09	.13
A Twin	1 3/16 x 5/16		3.13	79	15.4	68.5	25.1	111.6	33.8	150.3	41.2	183.3	.15	.22
AA	1/2 x 1 3/32		4.13	105	10.8	48.0	17.6	78.3	23.7	105.4	28.8	128.1	.09	.13
B/17	1 1/16 x 1 3/32	17 x 11.5	4.13	105	13.1	58.3	21.3	94.7	28.6	127.2	34.8	154.8	.11	.16
BB	1 1/16 x 9/16		5.63	143	16.5	73.4	26.8	119.2	36.1	160.6	44.0	195.7	.16	.24
C/22	2 9/32 x 1 7/32	22 x 14.5	5.38	136	22.7	101.0	37.0	164.6	49.8	221.5	60.7	270.0	.19	.28
D/32 Ribbed	1 5/16 x 3/4		8.50	216	47.1	209.5	76.8	341.6	103.3	459.5	125.9	560.0	.38	.57

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

* w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface. Dimensions are for reference only.

Eagle White 40D

DESCRIPTION
Round, Non-Reinforced



MATERIAL
Polyester

HARDNESS
40D
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +176°F
-30°C to +80°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3mm	3	1.18	30	1.9	8.3	2.9	12.8	3.8	16.8	4.5	20.2	.006	.009
4mm	4	1.57	40	3.3	14.8	5.1	22.8	6.7	29.8	8.1	35.9	.01	.015
5mm	5	2.00	50	5.2	23.1	8.0	35.6	10.5	46.7	12.6	56.0	.02	.03
6mm	6	2.38	60	7.5	33.7	11.5	51.2	15.1	67.2	18.2	80.9	.025	.04
8mm	8	3.10	80	13.3	59.2	20.5	91.2	26.8	119.2	32.3	143.7	.04	.06
10mm	10	4.00	100	20.8	92.5	32.0	142.2	41.9	186.5	50.5	224.6	.07	.10
12mm	12	4.75	120	29.9	133.2	46.0	204.7	60.4	268.5	72.7	323.5	.09	.13
15mm	15	5.90	150	46.8	208.1	71.9	319.9	94.3	419.6	113.6	505.4	.14	.21
18mm	18	7.10	180	67.4	299.7	103.6	460.6	135.8	604.2	163.6	727.8	.22	.33
20mm	20	7.88	200	83.2	370.0	127.9	568.7	167.7	745.9	202.0	898.5	.23	.34

Eagle White 40D Eagle White 40D SGT

DESCRIPTION
Trapezoidal, Non-Reinforced;
SGT with Integrally Bonded Top



← nominal 5mm
Add 5mm nominal to listed height for total belt height.

MATERIAL/HARDNESS
40D Polyester;
SGT with 50A PVC Top

FDA COMPLIANT MATERIALS
White 40D Only;
Not SGT

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +176°F
-30°C to +80°C

TEMPERATURE RANGE (SGT)
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)		Weight per metre (kg)			
		(White 40D)	(SGT)	(White 40D)	(SGT)	4%		6%		8%		10%		(White 40D)	(SGT)	(White 40D)	(SGT)
						(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)				
8mmx5mm	8 x 5	2.60	—	65	—	6.3	28.0	10.8	48.0	14.8	65.8	18.3	81.4	.02	—	.03	—
Z/10	10 x 6.5	3.10	—	80	—	9.4	41.8	16.1	71.6	22.2	98.7	27.4	121.9	.05	—	.07	—
A/13	1/2 x 5/16 13 x 8	4.00	4.50	102	114	15.7	69.8	26.9	120.0	37.0	164.6	45.8	203.7	.13	.08	.19	.12
B/17	1 1/16 x 13/32 17 x 11.5	5.50	6.50	140	165	27.1	120.5	46.4	206.4	64.0	284.7	79.1	351.8	.19	.12	.28	.18
C/22	29/32 x 17/32 22 x 14.5	7.00	7.50	178	191	47.3	210.4	80.8	359.4	111.4	495.5	137.8	612.9	.28	.20	.42	.30

Eagle Blue 55D

DESCRIPTION
Round, Non-Reinforced



MATERIAL
Polyester

HARDNESS
55D
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .50
Steel .40
UHMW .30

TEMPERATURE RANGE
-22°F to +176°F
-30°C to +80°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				4%		6%		8%		10%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
10mm	10	5.00	127	39.3	174.6	60.4	268.7	78.5	349.2	93.0	413.8	.07	.10
15mm	15	7.50	190	88.3	392.9	135.9	604.5	176.7	785.8	209.3	931.0	.14	.21
18mm	18	9.00	229	127.2	565.8	195.7	870.5	254.4	1131.5	301.4	1340.6	.22	.33

Technical Data

Eagle Blue 55D

DESCRIPTION
Trapezoidal,
Non-Reinforced



MATERIAL
Polyester

HARDNESS
55D
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .50
Steel .40
UHMW .30

TEMPERATURE RANGE
-22°F to +176°F
-30°C to +80°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
			4%		6%		8%		10%			
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
Z/10	10 x 6.5	3.13 80	22.2	98.8	32.7	145.2	41.0	182.4	47.5	211.2	.05	.07
A/13	1/2 x 5/16 13 x 8	4.00 102	35.5	158.1	52.3	232.4	65.6	291.8	76.0	337.9	.07	.10
B/17	1 1/16 x 1 3/32 17 x 11.5	5.50 140	61.2	272.2	90.0	400.1	112.9	502.4	130.8	581.7	.11	.21
C/22	2 9/32 x 1 7/32 22 x 14.5	7.00 178	108.5	482.7	159.5	709.5	200.3	890.8	231.9	1031.5	.19	.28

Eagle Opaque 80 R

DESCRIPTION
Round, Reinforced



HARDNESS
80A
FDA COMPLIANT MATERIALS
No

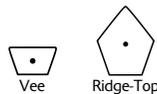
COEFFICIENT OF FRICTION
Stainless Steel .75
Steel .65
UHMW .50

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
			1%		2%		3%		4%			
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
8mm	8	3.13 80	4.3	19.2	10.7	47.6	15.4	68.4	19.0	84.6	.04	.06
10mm	10	3.93 100	9.7	43.1	24.1	107.2	34.6	153.9	42.8	190.3	.06	.09
15mm	15	5.90 150	21.8	97.0	54.2	241.1	77.9	346.4	96.3	428.2	.14	.21

Eagle Opaque 80 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
80A
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .75
Steel .65
UHMW .50

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

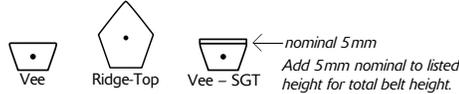
Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
			1%		2%		3%		4%			
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
A/13	1/2 x 5/16 13 x 8	3.13 80	6.2	27.5	16.7	74.4	25.2	111.9	30.8	136.8	.07	.10
A/13 Ridge-Top	13 x 16	6.30 160	6.2	27.5	16.7	74.4	25.2	111.9	30.8	136.8	.09	.13
B/17	1 1/16 x 1 3/32 17 x 11	4.38 110	11.0	48.8	29.7	132.0	44.6	198.4	54.5	242.6	.11	.16
B/17 Ridge-Top	17 x 19.5	7.88 200	11.0	48.8	29.7	132.0	44.6	198.4	54.5	242.6	.13	.19

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

*w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface.
Dimensions are for reference only.

Eagle Ivory 85 R Eagle Ivory 85 RSGT

DESCRIPTION
Trapezoidal, Reinforced
RSGT with Integrally Bonded Top



HARDNESS
85A; RSGT with 50A PVC Top,
55A TPE Top or
70A PU Top

FDA COMPLIANT
MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)		Weight per metre (kg)			
		(in) (Ivory 85 R)	(RSGT)	(mm) (Ivory 85 R)	(RSGT)	1% (lbs) (N)		2% (lbs) (N)		3% (lbs) (N)		4% (lbs) (N)		(Ivory 85 R)	(RSGT)	(Ivory 85 R)	(RSGT)
Z/10	10 x 6.5	2.38	—	60	—	2.9	12.7	8.6	38.2	13.7	60.8	17.4	77.6	.05	—	.07	—
A/13	1/2 x 5/16 13 x 8	3.13	3.60	80	92	5.0	22.2	15.1	67.0	24.0	106.7	30.6	136.1	.07	.08	.10	.12
A/13 Ridge-Top	13 x 16	6.30	—	160	—	5.0	22.2	15.1	67.0	24.0	106.7	30.6	136.1	.09	—	.13	—
B/17	1 1/16 x 1 3/32 17 x 11	4.38	4.88	110	124	8.8	39.4	26.7	118.8	42.5	189.2	54.3	241.3	.11	.12	.16	.18
B/17 Ridge-Top	17 x 19.5	7.88	—	200	—	8.8	39.4	26.7	118.8	42.5	189.2	54.3	241.3	.13	—	.19	—
C/22	2 9/32 x 1 7/32 22 x 14	5.50	6.00	140	152	14.6	65.1	44.2	196.7	70.4	313.1	89.8	399.4	.19	.20	.28	.30
C/22 Ridge-Top	22 x 24.5	11.00	—	280	—	14.6	65.1	44.2	196.7	70.4	313.1	89.8	399.4	.28	—	.41	—
C/22 Ridge-Top	22 x 28.5	11.00	—	280	—	14.6	65.1	44.2	196.7	70.4	313.1	89.8	399.4	.32	—	.47	—

Eagle Orange 85 R

DESCRIPTION
Round, Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
		(in)	(mm)	1% (lbs) (N)		2% (lbs) (N)		3% (lbs) (N)		4% (lbs) (N)			
6mm	6	2.38	60	0.8	3.6	2.8	12.3	5.4	24.1	7.8	34.6	.025	.04
1/4"	1/4 6.3	2.50	64	0.8	3.6	2.8	12.3	5.4	24.1	7.8	34.6	.03	.05
5/16"	5/16 7.9	3.13	79	1.3	5.6	4.3	19.3	8.5	37.6	12.1	54.0	.04	.06
8mm	8	3.13	80	1.3	5.6	4.3	19.3	8.5	37.6	12.1	54.0	.04	.06
3/8"	3/8 9.5	3.75	95	1.8	8.0	6.2	27.8	12.2	54.2	17.5	77.8	.06	.09
10mm	10	3.94	100	2.6	11.6	10.1	39.5	17.1	76.1	24.9	110.7	.06	.09
12mm	12	4.75	120	3.3	14.7	11.5	51.2	22.5	100.0	32.3	143.7	.09	.13
1/2"	1/2 12.5	5.00	127	3.2	14.2	11.1	49.4	21.6	96.3	31.1	138.2	.10	.15
9/16"	9/16 14.3	5.63	143	4.1	18.0	14.0	62.5	27.4	121.9	39.3	175.0	.13	.19
15mm	15	5.90	150	4.5	20.0	15.5	68.9	30.2	134.3	43.4	193.0	.14	.21
5/8"	5/8 15.9	6.25	159	5.0	22.3	17.3	77.1	33.8	150.4	48.6	216.0	.16	.24
3/4"	3/4 19.1	7.50	191	7.2	32.1	25.0	111.1	48.7	216.6	69.9	311.1	.23	.34
20mm	20	7.88	200	7.6	33.8	26.3	116.9	51.1	227.3	73.4	326.5	.23	.34

Eagle Orange 85 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
		(in)	(mm)	1% (lbs) (N)		2% (lbs) (N)		3% (lbs) (N)		4% (lbs) (N)			
Z/10	10 x 6.5	2.38	60	2.6	11.4	6.1	27.0	9.7	43.0	12.7	56.6	.05	.07
A/13	1/2 x 5/16 13 x 8	3.13	80	4.0	17.9	9.5	42.4	15.2	67.6	20.0	89.0	.07	.10
B/17	1 1/16 x 1 3/32 17 x 11.5	4.38	110	7.0	30.9	16.5	73.3	26.2	116.7	34.5	153.7	.11	.16
C/22	2 9/32 x 1 7/32 22 x 14.5	5.50	140	12.1	53.8	28.7	127.7	45.7	203.3	60.2	267.8	.19	.28

Technical Data

Eagle Hyfen 85 R

DESCRIPTION
Round, Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

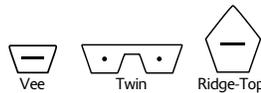
COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (in) (mm)		Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					1%		2%		3%		4%			
					(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3/16"	3/16		2.00	51	2.8	12.5	8.4	37.4	11.9	52.9	14.7	65.4	.01	.015
1/4"	1/4	6.3	2.75	70	3.0	13.4	9.5	42.3	14.9	66.3	18.7	83.2	.03	.05
5/16"	5/16		3.44	87	3.7	16.5	12.4	55.2	20.0	89.0	27.8	123.7	.04	.06
3/8"	3/8	9.5	4.13	105	7.3	32.5	26.2	116.5	43.5	193.5	57.4	255.3	.06	.09
1/2"	1/2	12.5	5.50	140	7.3	32.5	26.2	116.5	43.5	193.5	57.4	255.3	.10	.15
9/16"	9/16		6.19	157	16.7	74.3	36.6	162.8	58.0	258.0	75.8	337.2	.13	.19
5/8"	5/8		6.88	175	16.7	74.3	36.6	162.8	58.0	258.0	75.8	337.2	.16	.24
3/4"	3/4		8.25	210	16.7	74.3	36.6	162.8	58.0	258.0	75.8	337.2	.23	.34

Eagle Hyfen 85 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
85A
FDA COMPLIANT MATERIALS
Yes

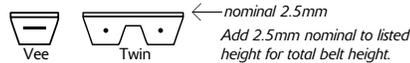
COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
3L Twin	15/16 x 17/64	3.00	76	14.4	63.9	20.7	91.9	27.8	123.8	35.3	156.8	.10	.15
A Ridge-Top	1/2 x 9/16	6.19	157	17.4	77.4	25.1	111.4	33.8	150.1	42.8	190.2	.09	.13
A Twin	1 3/16 x 5/16	3.44	87	16.5	73.3	23.7	105.5	31.9	142.1	40.5	180.0	.15	.22
B Ridge-Top	2 1/32 x 1 1/16	7.50	191	25.7	114.4	37.0	164.6	49.8	221.7	63.2	280.9	.13	.19
D	1 1/4 x 3/4	12.00	305	77.1	343.0	111.0	493.6	149.5	664.9	189.4	842.4	.38	.57

Eagle Hyfen 85 CXF Eagle Hyfen 85 CXR

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
85A Base, 60A Top
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .70
Steel .60
UHMW .45

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
				(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
A	1/2 x 5/16	4.50	114	22.2	98.6	29.6	131.7	36.7	163.1	43.4	193.2	.07	.10
A Twin	1 3/16 x 5/16	4.50	114	16.5	73.3	23.7	105.5	31.9	142.1	40.5	180.0	.15	.22
B	2 1/32 x 1 3/32	5.50	140	32.7	145.7	43.7	194.6	54.1	240.9	64.1	285.3	.11	.16
C	7/8 x 1 7/32	7.00	178	48.9	217.6	65.4	290.7	80.9	359.9	95.9	426.3	.15	.22
D	1 1/4 x 3/4	12.50	318	96.4	428.7	128.7	572.6	159.4	708.8	188.8	839.7	.38	.57

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

* w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface. Dimensions are for reference only.

Eagle Green 89 RT

DESCRIPTION
Round, Reinforced, Textured



HARDNESS
89A
FDA COMPLIANT MATERIALS
No

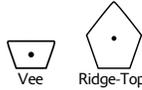
COEFFICIENT OF FRICTION
Stainless Steel .50
Steel .40
UHMW .30

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
5mm	5	2.00	50	1.7	7.4	5.0	22.2	10.2	45.5	15.8	70.1	.02	.03
6mm	6	2.38	60	2.4	10.6	7.2	32.0	14.7	65.5	22.7	101.0	.025	.04
7mm	7	2.75	70	3.3	14.5	9.8	43.5	20.0	89.1	30.9	137.4	.03	.05
8mm	8	3.13	80	4.3	18.9	12.8	56.8	26.2	116.4	40.4	179.5	.04	.06
10mm	10	3.94	100	6.6	29.6	20.0	88.8	40.9	181.9	63.1	280.5	.06	.09
12mm	12	4.75	120	9.6	42.6	28.8	127.9	58.9	262.0	90.8	403.9	.09	.13
15mm	15	5.90	150	15.0	66.5	44.9	199.8	92.0	409.3	141.9	631.1	.14	.21
18mm	18	7.00	180	21.5	95.8	64.7	287.8	132.5	589.4	204.3	908.8	.22	.33

Eagle Green 89 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
89A
FDA COMPLIANT MATERIALS
No

COEFFICIENT OF FRICTION
Stainless Steel .65
Steel .55
UHMW .40

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
A/13	13 x 8	3.70	95	13.4	59.8	51.9	230.8	80.9	360.1	101.3	450.8	.07	.10
A/13 Ridge-Top	13 x 16	6.30	160	13.4	59.8	51.9	230.8	80.9	360.1	101.3	450.8	.09	.13
B/17	17 x 11	4.70	120	19.6	87.2	71.8	319.3	127.1	565.6	166.4	740.7	.11	.16
B/17 Ridge-Top	17 x 19.5	8.10	205	19.6	87.2	71.8	319.3	127.1	565.6	166.4	740.7	.13	.19
C/22	22 x 14	5.90	150	35.0	155.7	131.5	218.8	218.8	873.8	280.5	1248.3	.19	.28
C/22 Ridge-Top	22 x 24.5	11.00	280	35.0	155.7	131.5	218.8	218.8	973.8	280.5	1248.3	.28	.41
C/22 Ridge-Top	22 x 28.5	11.00	280	35.0	155.7	131.5	218.8	218.8	973.8	280.5	1248.3	.32	.47

Eagle Beige 95 R

DESCRIPTION
Round, Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions Ø (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
		(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
8mm	8	3.75	96	3.8	17.1	7.0	31.2	10.4	46.2	13.6	205.5	.04	.06
10mm	10	4.75	120	6.0	26.7	11.0	48.8	16.2	72.2	21.2	321.1	.06	.09
15mm	15	7.10	180	13.5	60.1	24.7	109.7	36.5	162.5	47.8	722.8	.14	.21

Technical Data

Eagle Beige 95 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in) (mm)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
		(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)				
3L	3/8 x 7/32	2.63	67	11.1	49.2	25.8	114.8	37.9	168.4	46.6	207.2	.03	.05
3L Cogged	3/8 x 7/32	2.38	60	11.1	49.4	25.8	114.8	37.9	168.6	46.6	207.3	.03	.05
Z/10	10 x 6.5	2.81	72	12.5	55.6	29.0	129.0	42.6	189.5	52.4	233.1	.05	.07
A/13	1/2 x 3/8	3.75	96	20.6	91.6	48.0	213.5	70.5	313.6	86.7	385.6	.07	.10
A/13 Cogged	13 x 8	3.13	80	20.6	91.6	48.0	213.5	70.5	313.6	86.7	385.6	.06	.09
B/17	2 1/2 x 1/2	5.19	132	35.5	157.9	83.0	369.2	121.7	541.3	149.8	666.3	.11	.16
B/17 Cogged	17 x 11	4.38	110	35.5	157.9	83.0	369.2	121.7	541.3	149.8	666.3	.10	.15
C/22	7/8 x 5/8	6.63	168	61.9	275.3	144.5	642.7	212.0	943.0	260.9	1160.5	.19	.28
C/22 Cogged	22 x 14	5.50	140	61.9	275.3	144.5	642.7	212.0	943.0	260.9	1160.5	.18	.27

Eagle Hyfen 95 R

DESCRIPTION
Trapezoidal, Reinforced



HARDNESS
95A
FDA COMPLIANT MATERIALS
Yes

COEFFICIENT OF FRICTION
Stainless Steel .55
Steel .45
UHMW .35

TEMPERATURE RANGE
-22°F to +150°F
-30°C to +66°C

Cross Section	Dimensions w x h* (in)	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
				1%		2%		3%		4%			
		(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)				
A	1/2 x 3/8	4.50	114	22.3	99.2	32.4	144.2	41.6	185.2	50.4	224.1	.07	.10
A Cogged	1/2 x 3/8	3.50	89	22.3	99.2	32.4	144.2	41.6	185.2	50.4	224.1	.06	.09
B	2 1/2 x 1/2	6.00	152	32.9	146.5	47.9	213.0	61.5	273.5	74.4	330.9	.11	.16
B Cogged	2 1/2 x 1/2	4.50	114	32.9	146.5	47.9	213.0	61.5	273.5	74.4	330.9	.10	.15
C	7/8 x 5/8	7.50	191	49.2	218.8	71.5	318.2	91.9	408.6	111.2	494.4	.19	.28
C Cogged	7/8 x 5/8	6.50	216	49.2	218.8	71.5	318.2	91.9	408.6	111.2	494.4	.18	.27

Eagle Can Cable

DESCRIPTION
Round, Reinforced



MATERIAL
Polyester; Red is an Engineered Polymer

HARDNESS
See Chart

FDA COMPLIANT MATERIALS
All except Red

TEMPERATURE RANGE (RED ONLY)
-22°F to +150°F
-30°C to +66°C

TEMPERATURE RANGE (ALL OTHERS)
-22°F to +176°F
-30°C to +80°C

Product	Durometer Hardness	Dimension Ø	Minimum Pulley Ø (in) (mm)		Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)
					1%		2%		3%		4%			
			(in)	(mm)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)		
Red 50D CC LCF	50D	3/8"	10.00	254	23.8	105.9	57.8	257.2	104.3	463.7	152.2	677.2	.06	.09
Blue 55D CC	55D	3/8"	12.00	305	18.1	80.5	42.8	190.4	79.4	353.2	118.4	526.6	.06	.09
Natural 55D CC	55D	3/8"	12.00	305	18.1	80.5	42.8	190.4	79.4	353.2	118.4	526.6	.06	.09
Green 63D CC	63D	3/8"	12.00	305	18.1	80.5	42.8	190.4	79.4	353.2	118.4	526.6	.06	.09
Natural 63D CC	63D	3/8"	12.00	305	18.1	80.5	42.8	190.4	79.4	353.2	118.4	526.6	.06	.09
Blue 55D Aramid CC	55D	9.5mm	12.00	305	41.7	185.5	149.1	663.2	281.1	1250.4	N/A	N/A	.06	.09

For technical assistance and drive design help, contact Applications Engineering at ae@fennerdrives.com.

* w (width) is the widest part of the belt. h (height) is the tallest part of the belt, NOT including the belting top surface.

Dimensions are for reference only.

V-Belts

All polyurethane V-belts in the "classical" profiles (A, B, C, and D), and light duty 3L cross section are designed to fit RMA compliant pulleys as per the groove details illustrated in Fig. 1 below.

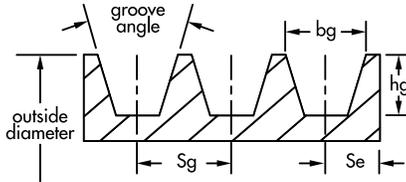


Figure 1

Cross Section	Datum Diameter Range	Groove Angle	b _g (in.)	h _g Min (in.)	S _g (in.)	S _e (in.)
A/13	Up thru 5.4"	34° ±0.33°	0.494	0.460	0.625 ±0.025	0.375 +0.090 -0.062
	Over 5.4"	38° ±0.33°	0.504 ±0.005			
B/17	Up thru 7.0"	34° ±0.33°	0.637	0.550	0.750 ±0.025	0.500 +0.120 -0.065
	Over 7.0"	38° ±0.33°	0.650 ±0.006			
C/22	Up thru 7.99"	34° ±0.33°	0.879	0.750	1.000 ±0.025	0.688 +0.160 -0.070
	8.0" thru 12.0"	36° ±0.33°	0.887 ±0.007			
D/32	Up thru 12.99"	34° ±0.33°	1.259	1.020	1.438 ±0.025	0.875 +0.220 -0.080
	13.0" thru 17.0"	36° ±0.33°	1.271 ±0.008			
	Over 17.0"	38° ±0.33°	1.283			
3L	2.2" thru 3.1"	34° ±0.33°	0.364 ±0.005	0.406	0.500 ±0.025	0.313 +0.062 -0.032
	3.2" thru 4.2"	36° ±0.33°				
	Over 4.2"	38° ±0.33°				

Dimensions in inches unless otherwise indicated.

Round Belts

Round Eagle® belting is commonly run in pulleys with a round profile, see Fig. 2. In the absence of round groove pulleys, round belts can also be used in pulleys with vee grooves, Fig. 3. The table at right shows the dimensional data when a round belt is used in a V-groove.

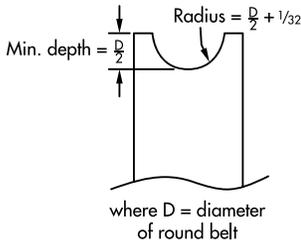


Figure 2

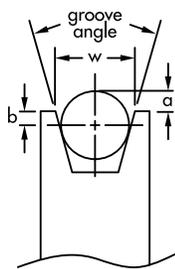


Figure 3

Pulley Size	Pulley Diameter (inches)	Groove Angle	Round Belt	Dimensions		
				w	a	b
2L	Under 1.50"	32°	3/16"	.240	.010	.084
2L	1.50" to 1.99" O.D.	34°	3/16"	.243	.016	.078
			1/4"	.243	.153	-.028
2L	2.00" to 2.50" O.D.	36°	3/16"	.246	.020	.074
			1/4"	.246	.151	-.026
2L	Over 2.50" O.D.	38°	3/16"	.250	.020	.074
			1/4"	.250	.146	-.021
3L	Under 2.20" O.D.	32°	1/4"	.360	-.049	.174
			5/16"	.360	.094	.062
3L	2.20" to 3.19" O.D.	34°	1/4"	.364	-.043	.168
			5/16"	.364	.094	.062
3L	3.20" to 4.20" O.D.	36°	1/4"	.368	-.037	.062
			5/16"	.368	.095	.061
3L	Over 4.20" O.D.	38°	1/4"	.372	-.031	.156
			5/16"	.372	.095	.061
A/13	2.60" to 5.40" D.D.	34°	5/16"	.494	-.118	.274
			3/8"	.494	.019	.168
			1/2"	.494	.297	-.047
A/13	Over 5.40" D.D.	38°	5/16"	.504	-.097	.253
			3/8"	.504	.030	.157
			1/2"	.504	.286	.036
B/17	4.60" to 7.00" D.D.	34°	1/2"	.637	.062	.188
			9/16"	.637	.199	.082
			5/8"	.637	.340	-.027
B/17	Over 7.00" D.D.	38°	1/2"	.650	.074	.176
			9/16"	.650	.200	.081
			5/8"	.650	.331	-.018
C/22	7.00" to 7.99" D.D.	34°	5/8"	.879	-.056	.369
			3/4"	.879	.218	.157
C/22	8.00" to 12.00" D.D.	36°	5/8"	.887	-.041	.354
			3/4"	.887	.222	.153
			5/8"	.895	-.027	.340
C/22	Over 12.00" D.D.	38°	5/8"	.895	-.027	.340
			3/4"	.895	.226	.149

Note: above dimensions are belt fit in groove under no tension. Dimensions in inches unless otherwise indicated.

Flat Belts

All flat belts have a natural tendency to move laterally. Therefore a flat or straight pulley is not recommended, as the belt would walk off the pulley. To keep the belt in the centre of the pulley it must have a crown. Fig. 4 illustrates a round crown and is the preferred method. A modified round crown as illustrated in Fig. 5 is also acceptable. A flat pulley with guide flanges (Fig. 6) is not recommended. Even with the guide flanges the belt will move laterally and potentially could climb up onto them.

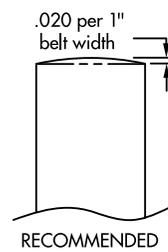


Figure 4

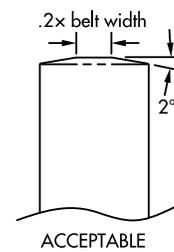


Figure 5

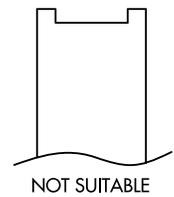


Figure 6

Engineering Data – Metric Pulley Sections

V-Belts

All polyurethane V-belts in the "classical" profiles, i.e. Z/10, A/13, B/17, C/22, and D/32, are designed to fit ISO and DIN 2215 compliant pulleys as per the groove details illustrated in Fig. 1 below.

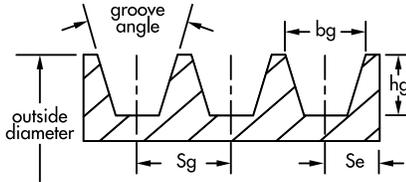


Figure 1

Cross Section	Datum Diameter Range	Groove Angle	b_g (mm)	h_g Min (mm)	S_g (mm)	S_e (mm)
Z/10	Up thru 80mm Over 80mm	34° ±1° 38° ±1°	9.7	11	12 ±0.3	8 ±0.6
A/13	Up thru 118mm Over 118mm	34° ±1° 38° ±1°	12.7	14	15 ±0.3	10 ±0.6
B/17	Up thru 190mm Over 190mm	34° ±1° 38° ±1°	16.3	18	19 ±0.4	12.5 ±0.8
C/22	Up thru 315mm Over 315mm	34° ±1° 38° ±30'	22	24	25.5 ±0.5	17 ±1.0
D/32	Up thru 500mm Over 500mm	36° ±30' 38° ±30'	32	28	37 ±0.6	24 ±2.0

Dimensions in millimetres unless otherwise indicated.

Round Belts

Round Eagle® belting is commonly run in pulleys with a round profile, see Fig. 2. In the absence of round groove pulleys, round belts can also be used in pulleys with vee grooves, Fig. 3. The table at right shows the dimensional data when a round belt is used in a V-groove.

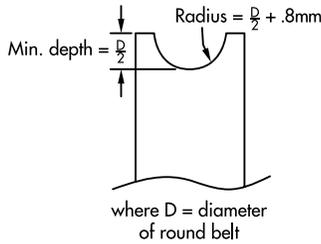


Figure 2

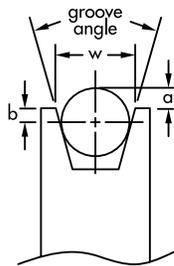


Figure 3

Pulley Size	Pulley Diameter O.D. (mm)	Groove Angle	Round Belt	Dimensions		
				w	a	b
Z/10	Up thru 80mm	34°	7	9.7	-0.39	3.89
			8	9.7	1.82	2.18
			9.5	9.7	5.14	-0.39
Z/10	Over 80mm	38°	7	9.7	0.17	3.34
			8	9.7	2.19	1.81
			9.5	9.7	5.25	-0.50
A/13	Up thru 118mm	34°	9.5	12.7	0.23	4.52
			10	12.7	1.33	3.67
			12	12.7	5.75	0.25
A/13	Over 118mm	38°	9.5	12.7	0.90	3.85
			10	12.7	1.91	3.09
			12	12.7	5.98	0.02
B/17	Up thru 190mm	34°	12	16.3	-0.14	6.14
			15	16.3	6.50	1.00
			16	16.3	8.71	-0.71
B/17	Over 190mm	38°	12	16.3	0.76	5.24
			15	16.3	6.87	0.63
			16	16.3	8.90	-0.90
C/22	Up thru 315mm	34°	20	22	8.22	1.78
C/22	Over 315mm	38°	20	22	9.00	1.23

Note: above dimensions are belt fit in groove under no tension. Dimensions are in millimetres unless otherwise indicated.

Flat Belts

All flat belts have a natural tendency to move laterally. Therefore a flat or straight pulley is not recommended, as the belt would walk off the pulley. To keep the belt in the centre of the pulley it must have a crown. Fig. 4 illustrates a round crown and is the preferred method. A modified round crown as illustrated in Fig. 5 is also acceptable. A flat pulley with guide flanges (Fig. 6) is not recommended. Even with the guide flanges the belt will move laterally and potentially could climb up onto them.

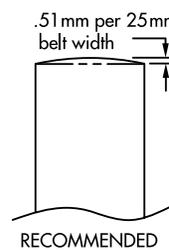


Figure 4

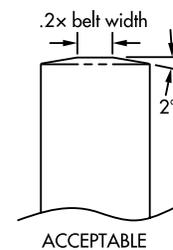


Figure 5

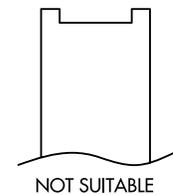


Figure 6

Belt Installation Tension

All belts require a certain amount of tension to function properly in the application. The specific installation tension is determined from several factors including belt type, construction and working load. Belt details are in the Technical Data section of this catalog and working load is derived from your application.

Non-Reinforced Belting: When non-reinforced belting is stretched and released, elasticity is the property that brings the material back to its original shape. This "memory" is what gives our non-reinforced belting its self-tensioning properties. When a non-reinforced belt is first installed (stretched) the material does not return to 100% of its original length and continues to lose elasticity over its life span. This loss in elasticity is evident as tension decay. To overcome tension decay effects, a non-reinforced belt requires a relatively high installed tension. Installation tensions ranging from 6% to 10% will normally be sufficient for most applications. If higher tensions are required, the application may exceed the belt's load capacity.

Reinforced Belting: Reinforced belts contain a reinforcing tensile member which increases the belt's modulus of elasticity. This reduces the belt's ability to stretch and minimizes tension decay. This allows a reinforced belt to carry a greater load than a non-reinforced belt. Since an endless reinforced belt is essentially a fixed length, it cannot be stretched on like a non-reinforced belt. Consequently, reinforced belts require a mechanical take-up mechanism to apply the appropriate installation tension as well as accommodating any eventual small amount of tension decay that may occur. This mechanism should accommodate at least 4% of the belt's length.

Belt Installation Length

In this section, we will refer to two different lengths that are defined as follows:

1. **Reference Length:** The length determined by taking a measuring tape and following the path of the belt around all of the pulleys, or through computer aided design (CAD) techniques. This length may also be obtained from the equation below. Take up mechanisms should be adjusted to the minimum position to allow for maximum adjustment of the belt prior to taking or calculating length. Note: this equation applies to two-pulley drives only.

$$L = 2C + \frac{\pi}{2}(D + d) + \frac{(D - d)^2}{4C}$$

where: L = reference length
C = center of pulley shaft to center of pulley shaft distance
D = pitch diameter of large pulley
d = pitch diameter of small pulley

2. **Cut Length:** The length the belt is cut to prior to welding.

Apply the following formulas to determine the Cut Length from Reference Length:

Butt weld non-reinforced:

$$\text{Cut Length} = \text{Reference Length} \div (1 + \% \text{ tension})$$

Example: Reference Length for a non-reinforced belt is 44" (1120mm), requires 8% tension and will be butt welded. Cut Length is calculated on right.

$$\begin{aligned} \text{Cut Length} &= 44" \div (1 + 8\%) & \text{Cut Length} &= 1120\text{mm} \div (1 + 8\%) \\ &= 44" \div 1.08 & &= 1120\text{mm} \div 1.08 \\ &= 40.7" & &= 1037\text{mm} \end{aligned}$$

Overlap weld reinforced: $\text{Cut Length} = \text{Reference Length} + 1.5" (38\text{mm})$

Example: Reference Length for a reinforced belt is 44" (1120mm) and will be overlap welded. The overlap weld consumes 1.5" (38mm) of belt length. Cut Length is calculated on right.

$$\begin{aligned} \text{Cut Length} &= 44" + 1.5" & \text{Cut Length} &= 1120\text{mm} + 38\text{mm} \\ &= 45.5" & &= 1158\text{mm} \end{aligned}$$

Butt weld reinforced: $\text{Cut Length} = \text{Reference Length}$

Example: Reference Length for a reinforced belt is 44" (1120mm) and will be butt welded. The weld consumes a negligible amount of belt length, consequently, Cut Length and Reference Length are the same. Cut Length is calculated on right.

$$\begin{aligned} \text{Cut Length} &= 44" & \text{Cut Length} &= 1120\text{mm} \end{aligned}$$

Temperature

The temperature range of polyurethane belting is determined by the thermoplastic resin. Like all thermoplastic resins its physical properties change with changes in temperature. At higher temperatures the material will soften, lose strength and can elongate excessively to the point of premature failure. At colder temperatures the material will become more brittle and stiff which can result in cracking. The temperature ranges are guidance and listed under each individual belt type in the Technical Data section.

Minimum Pulley Diameter

The most common serious mistake in designing belt drives is the selection of a pulley diameter that is too small. In most cases, non-reinforced belts can operate on smaller diameter pulleys than belts with a reinforcing tensile member. Reinforced belts require a larger pulley diameter to prevent premature flex fatigue failure of the tensile member. Listed under each individual belt type in the Technical Data section is the recommended minimum pulley diameter. Smaller diameters can be used only if a reduction in belt service life is acceptable.

Belt Profile Tolerance

Round Belts:

Up to and including 3/16" (5 mm) diameter:	$\pm 0.005"$ ($\pm .127\text{mm}$)
Over 3/16" (5 mm) up to and including 1/4" (6.3 mm) diameter:	$\pm 0.007"$ ($\pm .178\text{mm}$)
Over 1/4" (6.3 mm) up to and including 9/16" (14 mm) diameter:	$\pm 0.010"$ ($\pm .254\text{mm}$)
Over 9/16" (14 mm) in diameter:	$\pm 0.012"$ ($\pm .305\text{mm}$)

Flat and V-Belts:

All profiles:	$\pm 0.015"$ ($\pm .381\text{mm}$)
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If a tighter tolerance is required, consult Fenner Drives Applications Engineering Group with your requirements.

Engineering Data – Selection Procedure, Conveying

- Refer to the Technical Data chart for the belt material and cross section selected.
- Use the following formula that meets your application requirements (Note: if belt supported by rollers use .17 for μ):
 - Horizontal Transport with Slider Bed

$$T_e = W_t \times \mu + B_{wt}$$
 - Horizontal Transport with Slider Bed and Product Accumulation

$$T_e = W_t \times \mu + B_{wt} + A_{wt}$$
 - Incline or Decline Transport with Slider Bed

$$T_e = \frac{W_t}{C} \times (H_t + \mu \times \sqrt{C^2 + H_t^2}) + B_{wt}$$
 - Incline or Decline Transport with Slider Bed and Product Accumulation

$$T_e = \frac{W_t}{C} \times (H_t + \mu \times \sqrt{C^2 + H_t^2}) + B_{wt} + A_{wt}$$
- Determine Tight Tension (T_1).
 Flat and round belts: $T_1 = T_e \times 2$
 V-belts: $T_1 = T_e \times 1.25$
- Refer to the Technical Data chart for the material and cross section selected and compare T_1 to the Working Load at maximum % tension. If only one belt is desired, T_1 may not be greater than the Working Load at maximum % tension. If more than one belt is required, divide T_1 by the Working Load at maximum % tension to arrive at number of belts. Round up to the nearest whole number of belts.
- Find load per belt by dividing T_1 by number of belts. From the Technical Data chart, determine the percent installed tension for the load per belt.

To determine the required belt length, please refer to the "Belt Installation Length" section on the previous page.

Eagle Orange 85		DESCRIPTION		HARDNESS		COEFFICIENT OF FRICTION				TEMPERATURE RANGE			
Eagle Clear 85		Round, Non-Reinforced		85A		Stainless Steel .70				-22°F to +150°F			
				FDA COMPLIANT MATERIALS		Steel .60				-30°C to +66°C			
				Yes		UHMW .45							
Cross Section	Dimensions Ø (in) (mm)	Minimum Pulley Ø (in) (mm)	Working Load @ Percent Tension								Weight per foot (lbs)	Weight per metre (kg)	
			4%		6%		8%		10%				
			(lbs)	(N)	(lbs)	(N)	(lbs)	(N)	(lbs)	(N)			
6 mm	6	1.88	48	1.7	7.6	2.6	11.6	3.5	15.6	4.3	19.1	.04	.04
1/4	1/4	2.00	51	1.9	8.5	2.9	12.9	3.9	17.3	4.8	21.4	.04	.04

- Refer to the Technical Data chart for the belt material and cross section selected.

Example 1

Type of belt being considered = Eagle Orange 85 in 1/4" round

Head-to-tail center distance (C) = 10 feet

Incline or decline = none

Product accumulation on belt(s)? = no

Total weight on belt(s) = 15 lbs.

Type of belt support = UHMW slider bed

- Horizontal Transport with Slider Bed.
 Since the belt will run in UHMW slider bed the COF(μ) of .45 is used from Technical Data chart. From the chart the belt weight is .03 lbs/ft giving a total belt weight of .30 lbs (.03 x 10').

$$T_e = 15 \text{ lbs} \times .45 + .30 = 7.05$$
- Determine Tight Tension (T_1).
 round belts $T_1 = 7.05 \times 2 = 14.10$
- Refer to the Technical Data chart for the material and cross section selected and compare T_1 to the Working Load at 10% tension. If only one belt is desired, T_1 may not be greater than the Working Load at 10% tension. If more than one belt is required, divide T_1 by the Working Load at 10% tension to arrive at number of belts. Round up to the nearest whole number of belts.
 1/4" round rated 4.8 lbs @ 10% tension. $14.10 \div 4.8 = 2.94$ call 3 belts
- Find load per belt by dividing T_1 by number of belts. From the Technical Data chart, determine the percent installed tension for the load per belt.
 Load/belt = $14.10 \div 3 = 4.70$ lbs
 corresponding installed tension = 9.8%

Example 2

Eagle Orange 85 in 6mm round

Head-to-tail center distance (C) = 3 Metres

Incline or decline = none

Product accumulation on belt(s)? = no

Total weight on belt(s) = 6 kg

Type of belt support = UHMW slider bed

- Horizontal Transport with Slider Bed.
 Since the belt will run in UHMW slider bed the COF(μ) of .45 is used from Technical Data chart. From the chart the belt weight is .04 kgs/M giving a total belt weight of .12 kg (.04 x 3M).

$$T_e = 6 \text{ kg} \times .45 + .12 = 2.82 \text{ kg}$$
- Determine Tight Tension (T_1).
 round belts $T_1 = 2.82 \times 2 = 5.64 \text{ kg} = 55.3 \text{ Newtons} (5.64 \times 9.81)$
- Refer to the Technical Data chart for the material and cross section selected and compare T_1 to the Working Load at 10% tension. If only one belt is desired, T_1 may not be greater than the Working Load at 10% tension. If more than one belt is required, divide T_1 by the Working Load at 10% tension to arrive at number of belts. Round up to the nearest whole number of belts.
 6mm round rated 19.1 kg @ 10% tension. $55.3 \div 19.1 = 2.89$ call 3 belts
- Find load per belt by dividing T_1 by number of belts. From the Technical Data chart, determine the percent installed tension for the load per belt.
 Load/belt = $55.3 \text{ N} \div 3 = 18.4 \text{ Newtons}$
 corresponding installed tension = 9.4%

Chemical Resistance Chart

Polyurethane is extremely resistant to many industrial oils and chemicals, but not all. Below are a wide variety of oils and chemicals found in industrial applications. Consult Fenner Drives Applications Engineering group for assistance on projects with design criteria outside these parameters, or obtain a sample belt and determine its compatibility in the precise operating conditions.

Acids	Rating	Fuels	Rating	Solvents	Rating
Acetic, 5%	C	ASTM Fuel A	A	Acetone	C
Boric, 4%	C	ASTM Fuel B	C	Aniline	C
Chromic	C	ASTM Fuel C	C	Benzene	C
Citronic	C	Diesel Fuel	B	Benzyl Alcohol	C
Formic	C	Gasoline, Premium	C	Butane	C
HCl	B	Gasohol (10-15% Methanol)	C	Butyl Acetate	C
Hydrochloric, 10%	C	Jet Fuel, JP-4	A	Butyl Alcohol	C
Lactic	C	Kerosene	A	Carbon Tetrachloride	C
Nitric, >1%	C			Chlorobenzene	C
Oleic	C	Oils	Rating	Chloroform	C
Phosphoric	C	ASTM Oil #1	A	Cyclohexane	C
Sulfuric, <20%	B	ASTM Oil #2	A	Ethanol	C
Sulfuric, >20%	C	ASTM Oil #3	A	Ether	C
		Brake Fluid (ATE or ATS)	C	Ethyl Acetate	C
		Gear Box Oil (SAE 90)	A	Freon 11, 12, 22	C
Alkalines	Rating	Hydraulic Fluid	C	Freon 113	A
Ammonia, >10%	C	Hydraulic/Water Emulsion	C	Glycerine, Glycerol, Glycol	A
Detergent, 1%	A	Mineral Oil	A	Heptane	B
Potassium Hydroxide	B	Motor Oil	A	Hexane	C
Soap, 1%	A	Paraffin Oil	A	Isopropyl Alcohol	C
Sodium Hydroxide, 10%	C	Petroleum (Texas Sour Crude)	A	Methanol	C
		Power Steering Fluid	B	Methyl Acetate	C
		Skydrol 500 Oil	C	Methyl Ethyl Ketone	C
Aqueous Solutions	Rating	Transmission Oil A	A	Methyl Glycol	C
Aluminum Chloride, 10%	C			Methylene Chloride	C
Ammonium Chloride, 10%	C	Greases	Rating	N-Methyl Pyrrolidone	C
Bleaching Agent, 40%	B	Calcium Grease	B	Perchloroethylene	C
Bleaching Agent, 100%	C	Sodium Grease	B	Pyridine	C
Calcium Chloride, 40%	C	Teflon Grease	A	Turpentine	A
Caustic Soda, 10%	B			Tetrachloroethylene	C
Cola	A	Miscellaneous	Rating	Tetrahydrofuran	C
Ferric Chloride, 10%	C	Dioctyl Phthalate (DOP)	A	Toluene	C
Hydrogen Peroxide, 3%	B	Ethylene Chloride	C	Trichloroethylene	C
Isopropanol, 50%	C	Ethylene Dichloride	C	Xylene	C
Magnesium Chloride, 30%	C	Ethylene GlycoWater 50/50	C		
Potassium Chloride, 40%	C	Household Cleaner	B		
Potassium Dichromate, 10%	C	Naptha	A		
Potassium Permanganate, 5%	C	Silage (Silo) Juice	C		
Sea Water	B	Natural Perspiration	B		
Sodium Bisulfate, 10%	C	Tincture of Iodine	C		
Sodium Chloride, 10%	C	Tricresyl Phosphate	C		
Sodium Hypochlorite, 5%	C				
Sodium Thiosulfate, 20%	A				
Water, Deionized	A				

Rating Key

A - Fluid has little or no effect

B - Fluid has minor to moderate effect

C - Fluid has severe effect

Frequently Asked Questions

Q *I will be using Eagle® Belting in a high humidity environment. Will this affect the life of the belting?*

A High humidity will have some effect, although not believed to be significant, on the belt life.

Q *I have an application involving 200°F/93°C temperature. Can I use your polyurethane belting?*

A Our Eagle polyurethane products are usually limited to 150°F/66°C (see Technical Data for details). At higher temperatures the polyurethane softens and loses strength, resulting in excessive stretch. However, Fenner Drives' PowerTwist Plus® should be considered as an option.

Q *My application involves washdown. What effect will it have on the belt?*

A Polyurethane is resistant to water and many industrial chemicals, but not resistant to all. Consult the Chemical Resistance Chart on page 26 or contact Fenner Drives Applications Engineering group with the contaminants present and we will make a recommendation.

Q *The standard profiles shown do not appear to suit my needs. Do you make special profiles?*

A Yes! At Fenner Drives, we welcome the opportunity. Contact Fenner Drives Applications Engineering group at ae@fennerdrives.com for assistance.

For any questions about our extensive line of products, just call 1-800-243-3374 or +44 (0)870 757 7007 and your Inside Sales Specialist will help you.

Q *Are the Polyurethane and Polyester belting products RoHS compliant?*

A Yes. All of the Eagle Polyurethane and Polyester Belting products are RoHS compliant.

Q *I plan on using a B/17 section polyurethane belt. Will your belt fit pulleys that I can buy from numerous power transmission distributors?*

A Yes. All of our "classical" polyurethane belts, i.e. Z/10, A/13, B/17, C/22 and D/32, are designed to fit RMA/BS/DIN/ISO compliant pulleys.

Q *Why can't I butt weld your reinforced polyurethane belting?*

A You can, but it will be necessary to drill back the reinforcement. Follow butt welding instructions available at www.fennerdrives.com.

Q *Do I need some take-up adjustment when using your polyurethane belts?*

A When using non-reinforced polyurethane belting, take-up is not required. However, all reinforced type belting does require take-up. One good option is our T-Max Belt & Chain Tensioner® with a PowerMax™ Idler Pulley.

Q *On my conveying application, the product being moved could occasionally accumulate. What belt do you recommend for this?*

A Our Eagle Green 89T with its textured surface provides a lower coefficient of friction, ideal for applications where product accumulation can occur.

Count on Fenner Drives.

We've got the right product for your application.



PowerTwist Plus
V-BELTS

SUPER T LINK
SP WEDGE BELTS

NU T LINK
V-BELTS

Trantorque
Keyless Bushings

B-LOC
KEYLESS BUSHINGS

EAGLE
POLYURETHANE BELTING & O-RINGS

T-MAX
BELT & CHAIN TENSIONERS

PowerMax
PULLEYS & IDLERS

Trackstar
UHMW BELT & CHAIN GUIDES

Visit us at www.fennerdrives.com

Fenner Drives is a proven leader in the design and manufacture of problem-solving power transmission and motion transfer components. Recognized widely for our expertise and innovation in manufacturing technology, we consistently blend reliability, quality and value in our products. As part of our commitment to provide unsurpassed technical support and service, we maintain extensive engineering, development and testing facilities.

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