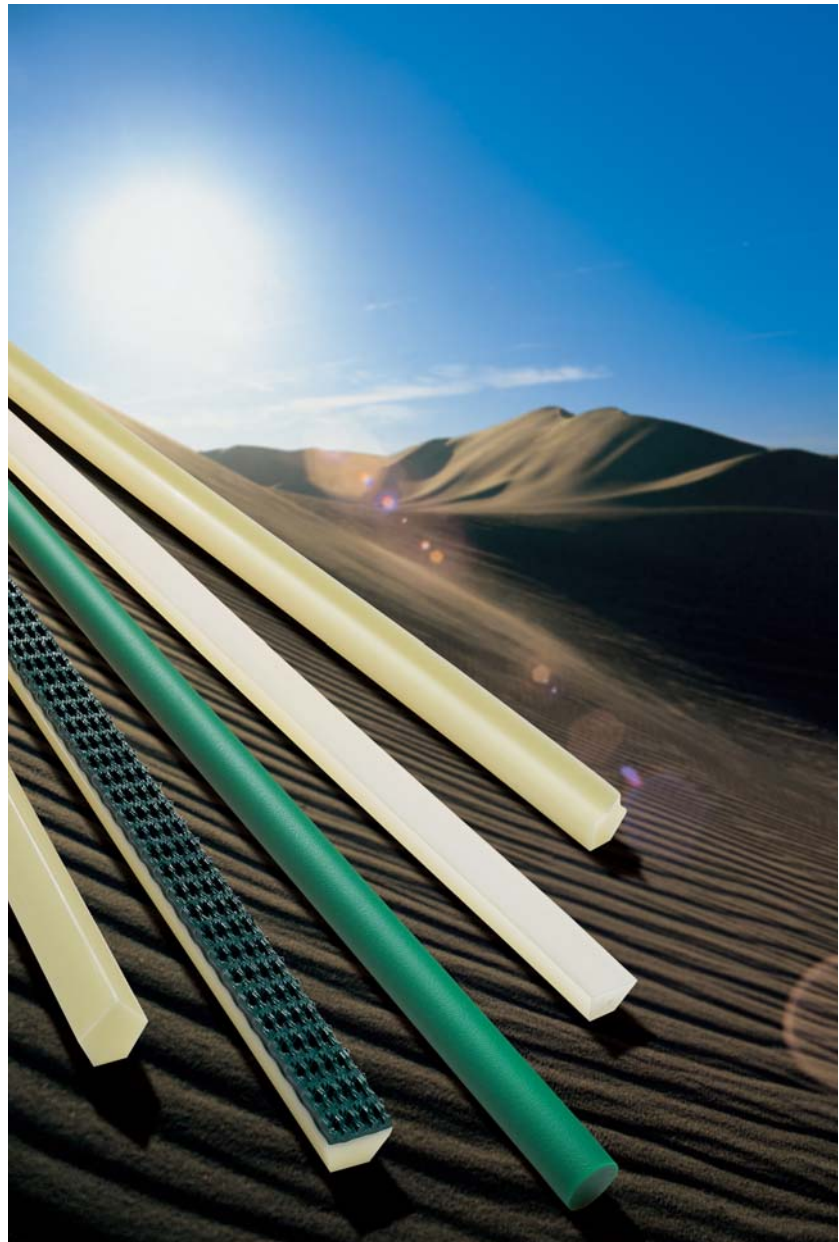


Conveying Solutions

Plastic profile belts
for conveying and
drive applications



NSW Profile Belts

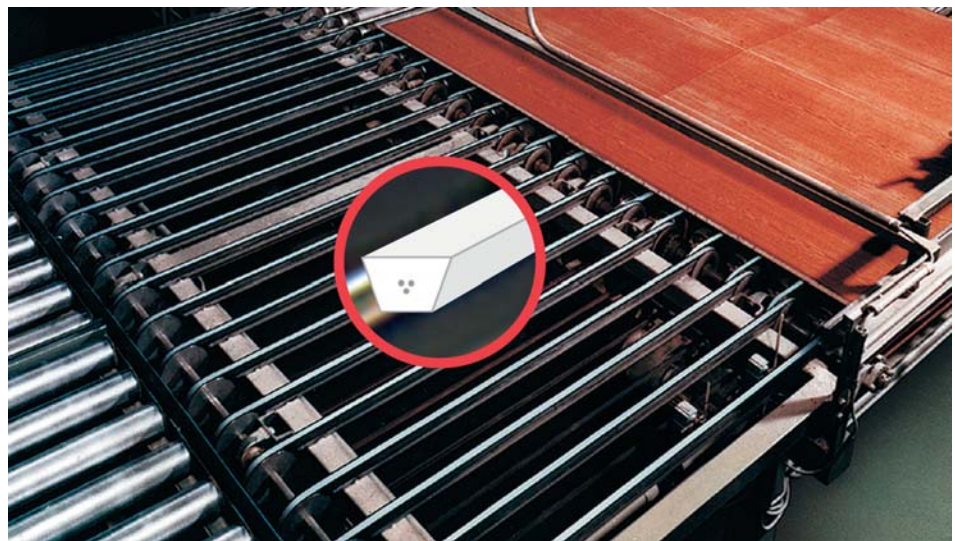
For more than two decades, NSW (Norddeutsche Seekabelwerke GmbH & Co. KG) has manufactured weldable profile belts for conveying applications in a wide range of industries worldwide.

NSW's thermoplastic polyurethane and polyester elastomer profile belts are manufactured to high quality standards that ensure long-term economical use. NSW offers a wide range of profiles suitable for numerous conveying applications.

Available in full roll length for economical in-house use.

Quick on-site installation with NSW's easy-to-use welding tool. Minimal downtime since no disassembly is required.

Abrasion-resistant material ensures long belt life.



- Quick assembly without dismantling machine parts
- Easily joined with NSW's convenient welding tool
- High abrasion resistance ensures long service life
- Resistant to oil, grease and most chemicals
- Resistant to dust, dirt and moisture
- High tensile strength

Applications:

- Woodworking machines
- Tile conveying machines
- Stoneware processing systems
- Glass conveying systems
- Can conveying systems
- Packaging machines
- Roller conveyors
- Textile machines
- Tray conveyors for the restaurant industry

NSW Profile Belts

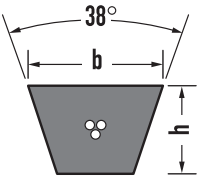
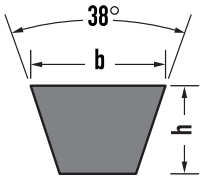
Product Overview

	PUW Thermoplastic polyurethane elastomer Shore 85 A / 32 D · Shore 87 A / 34 D	PW Thermoplastic polyester elastomer Shore 92 A / 40 D	PH Thermoplastic polyester elastomer Shore 55 D
 Standard V-belt (DIN 2215), sizes: 8 – 10 – 13 – 17 – 19 – 20 – 22 – 25 – 32 mm	Page 4	Page 5	Page 6
 Standard reinforced V-belt (DIN 2215), sizes: 13 – 17 – 22 mm	Page 4	Page 5	
 Standard cogged V-belt with reinforcement (NSW specification), sizes: 13 – 17 mm		Page 6	
 Standard V-belt (DIN 2215), with an approx. 3.5 mm thick supergrip profile layer, with or without reinforcement, sizes: 10 – 13 – 17 – 22 mm	Page 7	Page 7	
 Round belt (NSW specification), sizes: 2 – 3 – 4 – 5 – 6 – 6.3 – 7 – 8 – 9 – 9.5 – 10 – 12 – 12.5 – 15 – 18 – 20 mm		Page 8	Page 9
 Reinforced round belt (NSW specification), sizes: 8 – 9.5 – 10 – 12 – 15 mm		Page 9	Page 10
 Flat belt (NSW specification), available in widths from 10 to 100 mm			Page 11
 Ridge-top V-belt, Form 1 (NSW specification), sizes: 13 – 17 – 20 – 22 mm		Page 12	
 Ridge-top V-belt, Form 2 (NSW specification), sizes: 13 – 17 – 20 – 22 mm		Page 12	
 Ridge-top V-belt, Form 1 (NSW specification), with reinforcement, sizes: 17 – 22 mm		Page 12	
 Ridge-top V-belt, Form 2 (NSW specification), with reinforcement, sizes: 17 – 22 mm		Page 12	
 T-belt (NSW specification), width up to 50 mm		Page 12	
 Double V-belt (NSW specification), sizes: 13 x 10 – 17 x 14 – 22 x 17 mm		Page 13	
 Parallel V-belt (NSW specification), sizes: 12 x 6 x 4 – 21 x 8 x 8.5 – 25 x 8 x 10.5 – 30 x 8 x 13 – 15 x 8 x 5.5 mm		Page 13	

Special dimensions/specifications available on request.

NSW Profile Belts

V-belts



V-belts (dimensions cf. DIN 2215)

- Material: PUW, thermoplastic polyurethane elastomer, shore hardness 85A, 32D
- Temperature range 0° to 80 °C

Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PUW 10	10	6	63	None	1.5 - 3.0%	35
			71	None		50
			80	None		60
PUW 13	13	8	80	None	1.5 - 3.0%	60
			90	None		85
			100	None		100
PUW 17	17	11	100	None	1.5 - 3.0%	100
			112	None		140
			125	None		180
PUW 22	22	14	140	None	1.5 - 3.0%	170
			160	None		240
			200	None		300

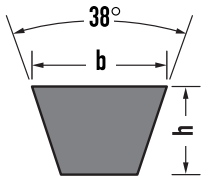
Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PUW RP 13	13	8	140	Polyester	0.5 - 1.0%	Welded 85
			140	Polyester		Knotted 280
PUW RP 17	17	11	180	Polyester	0.5 - 1.0%	Welded 100
			180	Polyester		Knotted 320
PUW RP 22	22	14	200	Polyester	0.5 - 1.0%	Welded 170
			200	Polyester		Knotted 350

in mm

* Pitch diameter

NSW Profile Belts

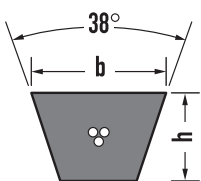
V-belts



V-belts (dimensions cf. DIN 2215)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW 8	8	5	56	None	1,5 - 3,0 %	30
			63	None	1,5 - 3,0 %	45
			71	None	1,5 - 3,0 %	55
PW 10	10	6	71	None	1,5 - 3,0 %	50
			80	None	1,5 - 3,0 %	70
			90	None	1,5 - 3,0 %	85
PW 13	13	8	90	None	1,5 - 3,0 %	80
			100	None	1,5 - 3,0 %	120
			112	None	1,5 - 3,0 %	145
PW 17	17	11	125	None	1,5 - 3,0 %	140
			140	None	1,5 - 3,0 %	210
			160	None	1,5 - 3,0 %	250
PW 19	19	12	140	None	1,5 - 3,0 %	160
			160	None	1,5 - 3,0 %	250
			180	None	1,5 - 3,0 %	300
PW 20	20	12,5	140	None	1,5 - 3,0 %	190
			160	None	1,5 - 3,0 %	290
			180	None	1,5 - 3,0 %	350
PW 22	22	14	160	None	1,5 - 3,0 %	230
			180	None	1,5 - 3,0 %	350
			200	None	1,5 - 3,0 %	420
PW 25	25	16	180	None	1,5 - 3,0 %	300
			200	None	1,5 - 3,0 %	450
			224	None	1,5 - 3,0 %	540
PW 32	32	20	224	None	1,5 - 3,0 %	500
			250	None	1,5 - 3,0 %	700
			280	None	1,5 - 3,0 %	900



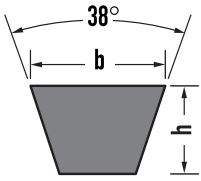
Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW RK 13	13	8	140	Kevlar®	0.3 - 0.5 %	Knotted 300
PW RP 13	13	8	140	Polyester	0.5 - 1.0 %	Welded 120
				Polyester	0.5 - 1.0 %	Knotted 300
PW RK 17	17	11	160	Kevlar®	0.3 - 0.5 %	Knotted 320
PW RP 17	17	11	160	Polyester	0.5 - 1.0 %	Welded 210
				Polyester	0.5 - 1.0 %	Knotted 330
PW RP 22	22	14	180	Polyester	0.5 - 1.0 %	Knotted 380

in mm

* Pitch diameter

NSW Profile Belts

V-belts



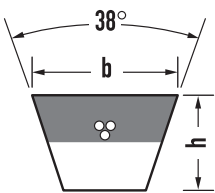
V-belts (dimensions cf. DIN 2215)

- Material: PH, thermoplastic polyester elastomer, shore hardness 55D
- Temperature range -5° to 80 °C

Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PH 8	8	5	71	None	1.5 - 3.0 %	45
			80	None	1.5 - 3.0 %	90
			90	None	1.5 - 3.0 %	110
PH 10	10	6	90	None	1.5 - 3.0 %	70
			100	None	1.5 - 3.0 %	140
			112	None	1.5 - 3.0 %	170
PH 13	13	8	112	None	1.5 - 3.0 %	120
			125	None	1.5 - 3.0 %	240
			140	None	1.5 - 3.0 %	285
PH 17	17	11	140	None	1.5 - 3.0 %	210
			160	None	1.5 - 3.0 %	420
			180	None	1.5 - 3.0 %	490
PH 20	20	12.5	180	None	1.5 - 3.0 %	290
			200	None	1.5 - 3.0 %	580
			224	None	1.5 - 3.0 %	680
PH 22	22	14	200	None	1.5 - 3.0 %	350
			224	None	1.5 - 3.0 %	700
			250	None	1.5 - 3.0 %	820
PH 25	25	16	224	None	1.5 - 3.0 %	450
			250	None	1.5 - 3.0 %	900
			280	None	1.5 - 3.0 %	1050

in mm

* Pitch diameter



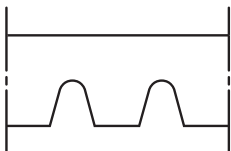
Cogged V-belt (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW RP 13 Cogged	13	8	125	Polyester	0.5 - 1.0 %	Welded 120
PW RP 17 Cogged	17	11	140	Polyester	0.5 - 1.0 %	Welded 210

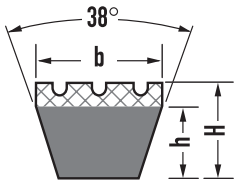
in mm

* Pitch diameter



NSW Profile Belts

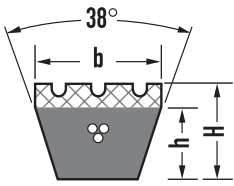
V-belts with Supergrip



V-belt with supergrip (dimensions cf. DIN 2215)

- Material: PUW, thermoplastic polyurethane elastomer, shore hardness 85A, 32D
- Temperature range 0° to 80 °C

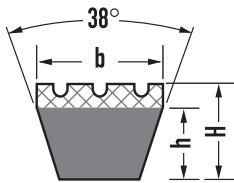
Type	b	h	H	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PUW 13 SG	13	8	11.5	112	None	1.5 - 3.0%	110
				125	None	1.5 - 3.0%	165
PUW 17 SG	17	11	14.5	125	None	1.5 - 3.0%	180
				140	None	1.5 - 3.0%	210



Type	b	h	H	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PUWRP13SG	13	8	11.5	140	Polyester	0.5 - 1.0%	Welded 85
PUWRP17SG	17	11	14.5	160	Polyester	0.5 - 1.0%	Welded 140
PUWRP22SG	22	14	17.5	180	Polyester	0.5 - 1.0%	Welded 240

in mm

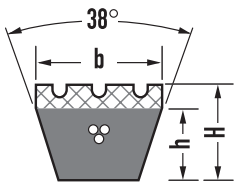
* Pitch diameter



V-belt with supergrip (dimensions cf. DIN 2215)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	b	h	H	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW 10 SG	10	6	9.5	100	None	1.5 - 3.0%	100
				112	None	1.5 - 3.0%	120
PW 13 SG	13	8	11.5	125	None	1.5 - 3.0%	160
				140	None	1.5 - 3.0%	185
PW 17 SG	17	11	14.5	160	None	1.5 - 3.0%	250
				180	None	1.5 - 3.0%	280
PW 22 SG	22	14	17.5	180	None	1.5 - 3.0%	350
				200	None	1.5 - 3.0%	400



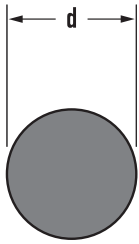
Type	b	h	H	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PWRP 13 SG	13	8	11.5	140	Polyester	0.5 - 1.0%	Welded 120
PWRP 17 SG	17	11	14.5	160	Polyester	0.5 - 1.0%	Welded 210

in mm

* Pitch diameter

NSW Profile Belts

Round Belts



Round belts (NSW specification)

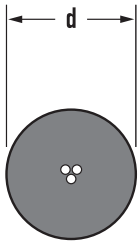
- Material: PUW, thermoplastic polyurethane elastomer, shore hardness 87A, 34D
- Temperature range 0° to 80 °C

Type	Diameter d	Pulley ϕ d min	Tension member	Pre-tension	Max. tensile strength N
PUW 2	2	18	None	1.5 - 3.0 %	2
		20	None	1.5 - 3.0 %	3
		25	None	1.5 - 3.0 %	4.5
PUW 3	3	22	None	1.5 - 3.0 %	5
		25	None	1.5 - 3.0 %	7
		30	None	1.5 - 3.0 %	10
PUW 4	4	30	None	1.5 - 3.0 %	9.5
		35	None	1.5 - 3.0 %	12
		40	None	1.5 - 3.0 %	18
PUW 5	5	35	None	1.5 - 3.0 %	12
		40	None	1.5 - 3.0 %	19
		45	None	1.5 - 3.0 %	25
PUW 6	6	45	None	1.5 - 3.0 %	19
		50	None	1.5 - 3.0 %	30
		55	None	1.5 - 3.0 %	37
PUW 6.3	6.3	45	None	1.5 - 3.0 %	19
		50	None	1.5 - 3.0 %	30
		55	None	1.5 - 3.0 %	37
PUW 7	7	50	None	1.5 - 3.0 %	26
		55	None	1.5 - 3.0 %	40
		60	None	1.5 - 3.0 %	55
PUW 8	8	60	None	1.5 - 3.0 %	35
		65	None	1.5 - 3.0 %	50
		70	None	1.5 - 3.0 %	75
PUW 9	9	70	None	1.5 - 3.0 %	44
		75	None	1.5 - 3.0 %	65
		80	None	1.5 - 3.0 %	85
PUW 9.5	9.5	70	None	1.5 - 3.0 %	48
		75	None	1.5 - 3.0 %	70
		80	None	1.5 - 3.0 %	90
PUW 10	10	70	None	1.5 - 3.0 %	53
		75	None	1.5 - 3.0 %	75
		80	None	1.5 - 3.0 %	95
PUW 12	12	90	None	1.5 - 3.0 %	80
		100	None	1.5 - 3.0 %	120
		120	None	1.5 - 3.0 %	165
PUW 12.5	12.5	90	None	1.5 - 3.0 %	80
		100	None	1.5 - 3.0 %	120
		120	None	1.5 - 3.0 %	165
PUW 15	15	100	None	1.5 - 3.0 %	125
		120	None	1.5 - 3.0 %	175
		145	None	1.5 - 3.0 %	260
PUW 18	18	120	None	1.5 - 3.0 %	170
		145	None	1.5 - 3.0 %	250
		160	None	1.5 - 3.0 %	380
PUW 20	20	145	None	1.5 - 3.0 %	210
		160	None	1.5 - 3.0 %	310
		180	None	1.5 - 3.0 %	460

in mm

NSW Profile Belts

Round Belts



Round belts (NSW specification)

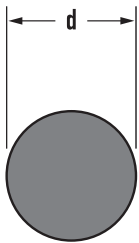
- Material: PUW, thermoplastic polyurethane elastomer, shore hardness 87A, 34D
- Temperature range 0° to 80 °C

Type	Diameter d	Pulley Ø d min	Tension member	Pre-tension	Max. tensile strength N
PUW RP 8	8	100	Polyester	0.5 - 1.0 %	Welded 50
PUW RP 10	10	120	Polyester	0.5 - 1.0 %	Welded 75
PUW RP 12	12	145	Polyester	0.5 - 1.0 %	Welded 120
PUW RP 15	15	160	Polyester	0.5 - 1.0 %	Welded 175

in mm

Round belts (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

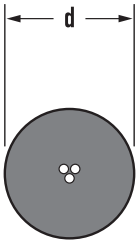


Type	Diameter d	Pulley Ø d min	Tension member	Pre-tension	Max. tensile strength N
PW 3	3	25	None	1.5 - 3.0 %	5
		30	None	1.5 - 3.0 %	10
		35	None	1.5 - 3.0 %	14
PW 4	4	35	None	1.5 - 3.0 %	8
		40	None	1.5 - 3.0 %	15
		45	None	1.5 - 3.0 %	25
PW 5	5	45	None	1.5 - 3.0 %	14
		50	None	1.5 - 3.0 %	25
		55	None	1.5 - 3.0 %	38
PW 6	6	55	None	1.5 - 3.0 %	20
		60	None	1.5 - 3.0 %	35
		65	None	1.5 - 3.0 %	55
PW 6.3	6.3	55	None	1.5 - 3.0 %	20
		60	None	1.5 - 3.0 %	35
		65	None	1.5 - 3.0 %	55
PW 8	8	70	None	1.5 - 3.0 %	35
		80	None	1.5 - 3.0 %	75
		90	None	1.5 - 3.0 %	100
PW 9.5	9.5	85	None	1.5 - 3.0 %	46
		95	None	1.5 - 3.0 %	100
		105	None	1.5 - 3.0 %	130
PW 10	10	85	None	1.5 - 3.0 %	50
		95	None	1.5 - 3.0 %	100
		105	None	1.5 - 3.0 %	150
PW 12	12	110	None	1.5 - 3.0 %	80
		125	None	1.5 - 3.0 %	170
		140	None	1.5 - 3.0 %	220
PW 12.5	12.5	110	None	1.5 - 3.0 %	85
		125	None	1.5 - 3.0 %	180
		140	None	1.5 - 3.0 %	240
PW 15	15	125	None	1.5 - 3.0 %	120
		150	None	1.5 - 3.0 %	260
		180	None	1.5 - 3.0 %	340
PW 18	18	160	None	1.5 - 3.0 %	175
		180	None	1.5 - 3.0 %	380
		200	None	1.5 - 3.0 %	480
PW 20	20	180	None	1.5 - 3.0 %	210
		200	None	1.5 - 3.0 %	470
		225	None	1.5 - 3.0 %	610

in mm

NSW Profile Belts

Round Belts

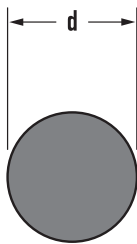


Round belts (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	Diameter d	Pulley ϕ d min	Tension member	Pre-tension	Max. tensile strength N
PW RP 15	15	180	Polyester	0.5 - 1.0 %	Welded 250
	15	180	Polyester	0.5 - 1.0 %	Knotted 300
PW RK 15	15	180	Kevlar®	0.3 - 0.5 %	Knotted 320

in mm



Round belts (NSW specification)

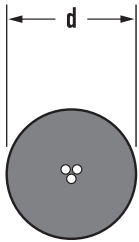
- Material: PH, thermoplastic polyester elastomer, shore hardness 55D
- Temperature range -5° to 80 °C

Type	Diameter d	Pulley ϕ d min	Tension member	Pre-tension	Max. tensile strength N
PH 2	2	25	None	1.5 - 3.0 %	10
		30	None	1.5 - 3.0 %	12
		35	None	1.5 - 3.0 %	15
PH 3	3	35	None	1.5 - 3.0 %	20
		40	None	1.5 - 3.0 %	26
		45	None	1.5 - 3.0 %	35
PH 4	4	50	None	1.5 - 3.0 %	35
		55	None	1.5 - 3.0 %	45
		60	None	1.5 - 3.0 %	58
PH 5	5	60	None	1.5 - 3.0 %	60
		65	None	1.5 - 3.0 %	75
		70	None	1.5 - 3.0 %	90
PH 6	6	75	None	1.5 - 3.0 %	85
		80	None	1.5 - 3.0 %	110
		85	None	1.5 - 3.0 %	130
PH 6.3	6.3	75	None	1.5 - 3.0 %	85
		80	None	1.5 - 3.0 %	110
		85	None	1.5 - 3.0 %	130
PH 8	8	95	None	1.5 - 3.0 %	150
		105	None	1.5 - 3.0 %	200
		115	None	1.5 - 3.0 %	250
PH 9.5	9.5	115	None	1.5 - 3.0 %	190
		125	None	1.5 - 3.0 %	250
		135	None	1.5 - 3.0 %	320
PH 10	10	115	None	1.5 - 3.0 %	190
		125	None	1.5 - 3.0 %	280
		140	None	1.5 - 3.0 %	360
PH 12	12	150	None	1.5 - 3.0 %	320
		160	None	1.5 - 3.0 %	430
		180	None	1.5 - 3.0 %	540
PH 12.5	12.5	150	None	1.5 - 3.0 %	350
		160	None	1.5 - 3.0 %	450
		180	None	1.5 - 3.0 %	570
PH 15	15	180	None	1.5 - 3.0 %	520
		200	None	1.5 - 3.0 %	680
		220	None	1.5 - 3.0 %	790
PH 18	18	220	None	1.5 - 3.0 %	740
		240	None	1.5 - 3.0 %	940
		260	None	1.5 - 3.0 %	1150
PH 20	20	240	None	1.5 - 3.0 %	920
		265	None	1.5 - 3.0 %	1180
		280	None	1.5 - 3.0 %	1350

in mm

NSW Profile Belts

Round Belts and Flat Belts



Round belts (NSW specification)

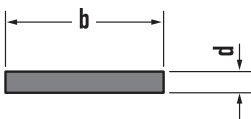
- Material: PH, thermoplastic polyester elastomer, shore hardness 55D
- Temperature range -5° to 80 °C

Type	Diameter d	Pulley Ø d min	Tension member	Pre-tension	Max. tensile strength N
PH RP 8	8	120	Polyester	0.5 - 1.0 %	Welded 150
	8	120	Polyester	0.5 - 1.0 %	Knotted 300
PH RS 8	8	300	Steel	0.3 - 0.5 %	Looped 650
PH RP 9.5	9.5	160	Polyester	0.5 - 1.0 %	Welded 190
	9.5	160	Polyester	0.5 - 1.0 %	Knotted 300
PH RK 9.5	9.5	160	Kevlar®	0.3 - 0.5 %	Knotted 300
PH RS 9.5	9.5	300	Steel	0.3 - 0.5 %	Looped 750
PH RP 10	10	160	Polyester	0.5 - 1.0 %	Welded 190
	10	160	Polyester	0.5 - 1.0 %	Knotted 300
PH RK 10	10	160	Kevlar®	0.3 - 0.5 %	Knotted 300
PH RS 10	10	300	Steel	0.3 - 0.5 %	Looped 750
PH RP 12	12	180	Polyester	0.5 - 1.0 %	Welded 320
	12	180	Polyester	0.5 - 1.0 %	Knotted 400
PH RK 12	12	180	Kevlar®	0.3 - 0.5 %	Knotted 410
PH RS 12	12	300	Steel	0.3 - 0.5 %	Looped 850

in mm

Flat belts (NSW specification)

- Material: PH, thermoplastic polyester elastomer, shore hardness 55D
- Temperature range -5° to 80 °C



Type	b	d	Pulley Ø dw min*	Pre-tension	Max. tensile strength N
25 x 1.0	25	1.0	15	1.5 - 3.0 %	62
18 x 1.2	18	1.2	18	1.5 - 3.0 %	54
25 x 1.2	25	1.2	18	1.5 - 3.0 %	75
30 x 1.2	30	1.2	18	1.5 - 3.0 %	90
25 x 1.5	25	1.5	24	1.5 - 3.0 %	90
50 x 1.5	50	1.5	24	1.5 - 3.0 %	180
20 x 1.7	20	1.7	26	1.5 - 3.0 %	85
10 x 1.9	10	1.9	30	1.5 - 3.0 %	47
15 x 1.9	15	1.9	30	1.5 - 3.0 %	70
18 x 1.9	18	1.9	30	1.5 - 3.0 %	85
20 x 1.9	20	1.9	30	1.5 - 3.0 %	95
25 x 2.0	25	2.0	30	1.5 - 3.0 %	125
30 x 2.0	30	2.0	30	1.5 - 3.0 %	150
100 x 2.0	100	2.0	30	1.5 - 3.0 %	500

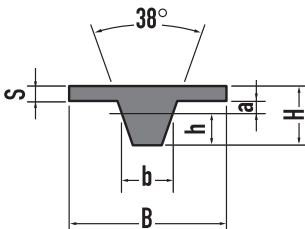
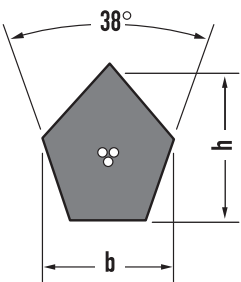
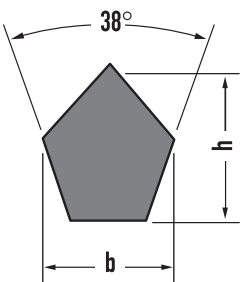
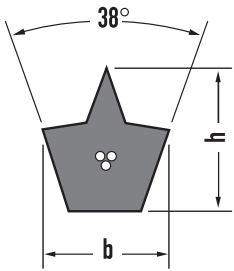
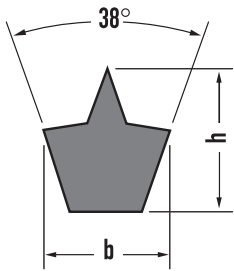
in mm

* Pitch diameter

Intermediate sizes and other thicknesses available on request.

NSW Profile Belts

Ridge-top V-belts and T-belts



Ridge-top V-belt, Form 1 (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	For pulley ridge width cf. DIN 2217	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW 13/1	13	13	15	120	None	1.5 - 3.0 %	135
PW 17/1	17	17	19	160	None	1.5 - 3.0 %	230
PW 20/1	20	20	22	180	None	1.5 - 3.0 %	320
PW 22/1	22	22	25	200	None	1.5 - 3.0 %	380

Type	For pulley ridge width cf. DIN 2217	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW 17/1	17	17	19	160	Polyester	0.5 - 1.0 %	Welded 230
PW 22/1	22	22	25	200	Polyester	0.5 - 1.0 %	Welded 380

in mm * Pitch diameter

Ridge-top V-belt, Form 2 (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	For pulley ridge width cf. DIN 2217	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PW 13/2	13	13	17	220	None	1.5 - 3.0 %	180
PW 17/2	17	17	22	280	None	1.5 - 3.0 %	310
PW 20/2	20	20	24	300	None	1.5 - 3.0 %	390
PW 22/2	22	22	28	350	None	1.5 - 3.0 %	520

in mm * Pitch diameter

- Material: PUW, thermoplastic polyurethane elastomer, shore hardness 85A, 32D
- Temperature range 0° to 80 °C

Type	For pulley ridge width cf. DIN 2217	b	h	Pulley ϕ dw min*	Tension member	Pre-tension	Max. tensile strength N
PUW17/2	17	17	22	280	Polyester	0.5 - 1.0 %	235
PUW22/2	22	22	28	350	Polyester	0.5 - 1.0 %	390

in mm * Pitch diameter

T-belt (NSW specification)

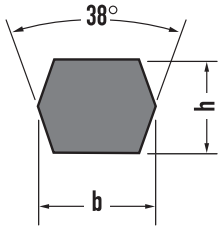
- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	For pulley ridge width cf. DIN 2217	B	b	h	S	a	H	Pulley ϕ dw min*	Pre-tension	Max. tensile strength N
E 30/ 8	8	30	8	5	2.5	2	9.5	100	1.5 - 3.0 %	110
E 40/10	10	40	10	6	3	2	11	112	1.5 - 3.0 %	250
E 50/10		50			3.5		11.5	112	1.5 - 3.0 %	330
E 20/13	13	20	13	8	3	2	13	140	1.5 - 3.0 %	210
E 40/13		40			3.5		13.5	140	1.5 - 3.0 %	330
E 50/13		50			3.5		13.5	140	1.5 - 3.0 %	360
E 40/17	17	40	17	11	4	3	18	180	1.5 - 3.0 %	490
E 50/17		50			4.5		18.5	180	1.5 - 3.0 %	540
E 40/22	22	40	22	14	5.5	3	22.5	225	1.5 - 3.0 %	680

in mm * Pitch diameter

NSW Profile Belts

Double and Parallel V-belts



Double V-belt (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

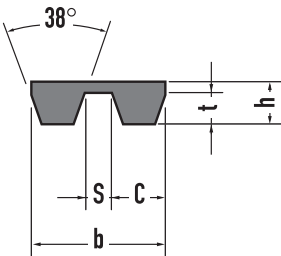
Type	b	h	Pulley ϕ dw min*	Pre-tension	Max. tensile strength N
DKR PW 13x10	13	10	120	1.5 - 3.0%	170
DKR PW 17x14	17	14	160	1.5 - 3.0%	300
DKR PW 22x17	22	17	220	1.5 - 3.0%	480

in mm

* Pitch diameter

Parallel V-belt (NSW specification)

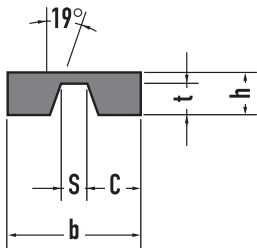
- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C



Type	b	h	C	t	S	Pulley ϕ dw min*	Pre-tension	Max. tensile strength N
PW 12x6	12	6	4	4.3	3.9	80	1.5 - 3.0%	65
PW 21x8	21	8	8.5	5.6	3.6	100	1.5 - 3.0%	160
PW 25x8	25	8	10.5	5.5	3.6	100	1.5 - 3.0%	220
PW 30x8	30	8	13	5.6	3.8	100	1.5 - 3.0%	280

in mm

* Pitch diameter



Parallel V-belt (NSW specification)

- Material: PW, thermoplastic polyester elastomer, shore hardness 92A, 40D
- Temperature range -5° to 70 °C

Type	b	h	C	t	S	Pulley ϕ dw min*	Pre-tension	Max. tensile strength N
PW 15x8	15	8	5.5	5.6	3.6	100	1.5 - 3.0%	125

in mm

* Pitch diameter

NSW Profile Belts

Tolerances

Type	Dimensions	Tolerance	
V-belts PUW	All sizes	Width ± 0.5	Height ± 0.5
V-belts PW - PH	8- 10 - 13 17 - 19 - 20 - 22 - 30 - 32	Width ± 0.5	Height ± 0.2
Round belts PUW - PW - PH	∅ 2.0 - ∅ 7.0 ∅ 8.0 - ∅ 15.0 ∅ 18.0 ∅ 20.0	± 0.2 ± 0.3 ± 0.5 ± 1.0	
Reinforced round belts	∅ 8.0 - ∅ 10.0 ∅ 12.0 - ∅ 15.0	± 0.3 ± 0.5	
Ridge-top V-belts PW - PH Form 1, Form 2	All sizes	Width ± 0.5	Height ± 0.5
T-belts PW	All sizes	Ridge ± 0.5	Wedge ± 0.5
Double V-belts PW	All sizes	Width ± 0.5	Height ± 0.5
Parallel V-belts PW	All sizes	Width ± 0.5	Height ± 0.5
Flat belts PH Round edges Cut edges	All sizes All sizes	Width ± 1.0 ± 0.5	Thickness ± 0.1 ± 0.1

in mm

Coefficient of Friction

Standard coefficient of friction values for NSW profile belts at an operating temperature of 20°C:

Contact material	PH	PW	PUW
Aluminum, extrusion profile	0.45	0.75	0.75
Glass	0.30	0.30	0.40
Veneer wood in grain direction	0.35	0.45	0.60
Polyethylene panels	0.15	0.30	0.30
Polyethylene with superfinish surface	0.10	0.25	0.25
Polished steel	0.40	0.70	0.95

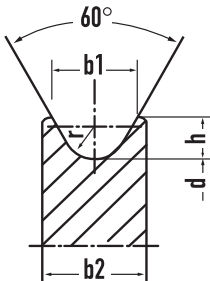
Deviations from norm can be expected based on surface properties and operating temperatures.

NSW Profile Belts

Pulley and Guide Rail Design Recommendations

Pulleys for Round Belts

For round belts NSW recommends pulleys with the following dimensions:



Belt ϕ	b1	b2	r	h
2	4.5	6.5	1.4	2.5
3	5.5	8	1.9	3
4	7	10	2.5	3.5
5	8	12	3	4
6	10	14	3.5	5
6.3	10	14	3.5	5
7	12	16	4	5.5
8	12	16	4.5	6
9	14	19	5.5	7
9.5	14.5	19	5.5	7
10	15	20	5.5	8
12	18	22	7	9
12.5	18.5	23	7	9
15	23	27	8	12
18	27	32	10	14
20	30	36	11	15

in mm

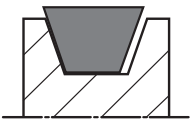
See pages 8 to 11 for the recommended minimum pulley diameters.

Steel, Special Steel and Al are the most suitable pulley materials. Because of their low friction values, NSW does not recommend plastic pulleys.

Guide Rail Support for V-belts

NSW recommends supporting the belts with protective rails or rollers. This prevents the belts from sagging under heavy loads. In long conveyor tracks, rollers and rails should be grooved to ensure sufficient lateral guidance.

The grooves should be designed to allow the belt to rest on the base of the groove, and touch on one side only.



The support rails should be made of a material with gliding properties. Contact NSW for details on recommended suppliers.

Splicing Technology

Universal Welding Clamp

NSW thermoplastic elastomer profile belts can be welded together easily by butt splicing. This allows on-site splicing without necessitating the dismantling of equipment. Belts can be spliced quickly and to any length.

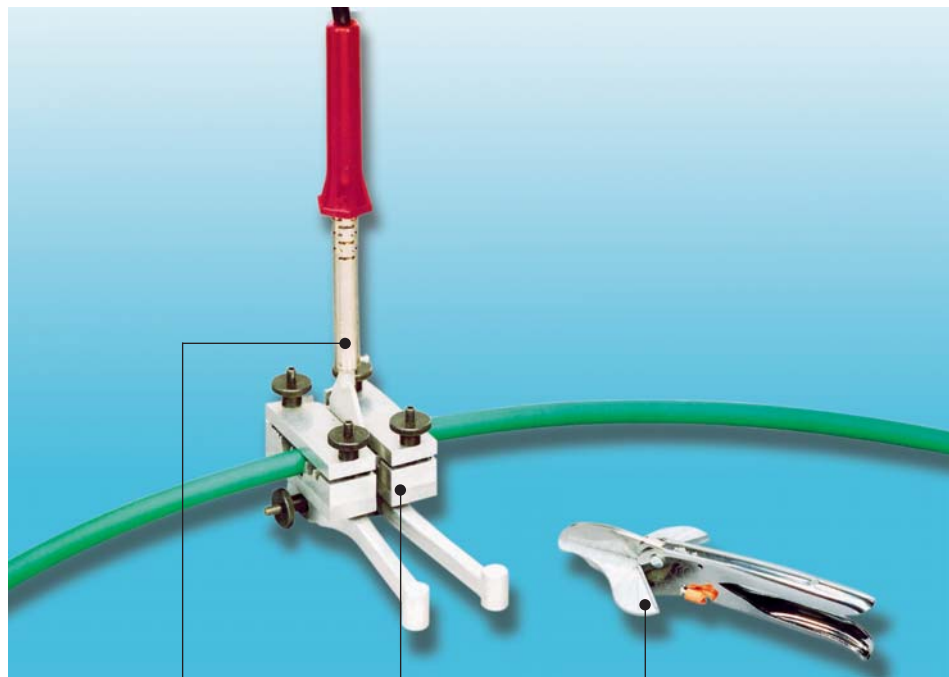
The plastic material at both ends of the belt is melted completely and connected during the welding process. The tensile strengths specified in the tables are thus maintained.

NSW profile belts are best joined using the NSW Universal Welding Clamp.

The complete kit consists of:

- Welding clamp
- Soldering iron
- Teflon-coated welding tip
- Scissors

For optimal results press the belt ends together carefully. The pressure applied should not squeeze molten plastic out of the joint.



Soldering iron with
teflon-coated welding tip

Welding clamp

Scissors

NSW Universal Welding Clamps are suitable for welding:

- V-belts with profiles from 8 to 32 mm
- Round belts with diameters from 2 to 20 mm
- Ridge-top V-belts with profiles from 13 to 22 mm
- T-belts
- Double V-belts
- Parallel V-belts
- Flat belts

A special flat belt welding clamp is available at the same price for welding flat belts.

Welding instructions are included with all shipments.

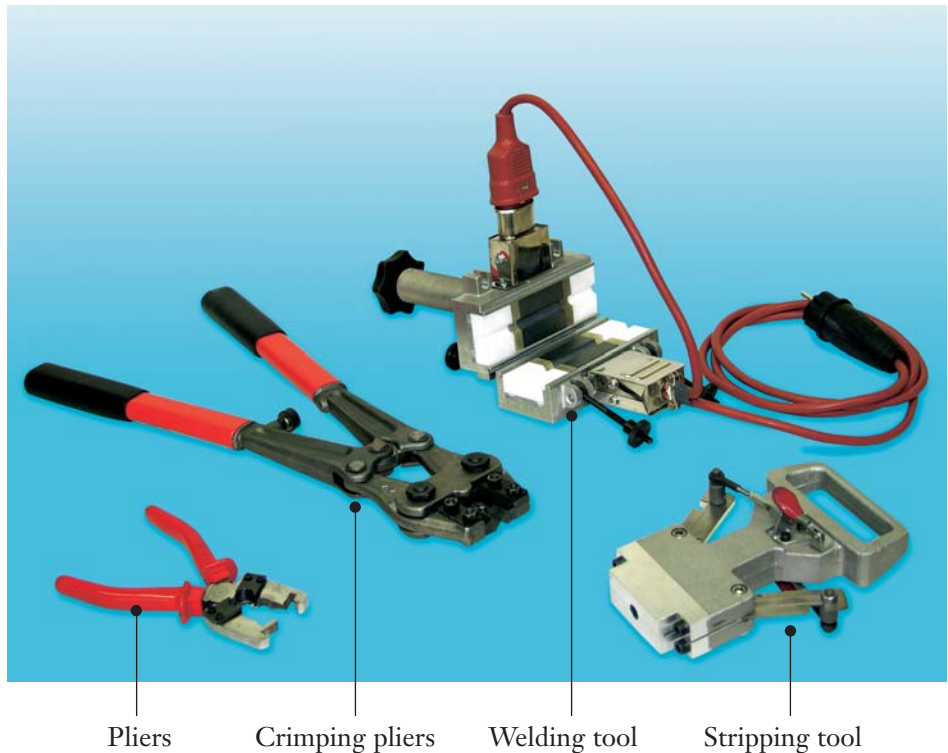
Splicing Technology

Tools for Knot and Loop Splices

For connecting NSW thermoplastic profile belts with polyester, Kevlar® or steel reinforcement special tools are required. This allows the customer to install belts of any length on location or directly in his production facility reliably and with a high level of quality.

Tooling for joining NSW profile belts with tension members:

- Stripping tool with gauge
- Pliers for removing plastic sheathing
- Crimping pliers for fastening crimps on steel reinforcement
- Welding tool for welding profile belts



The above tools for knot and loop connections are suitable for:

- V-belts 13 - 17 - 22 mm
- Round belts 8 - 9.5 - 10 - 12 - 15 mm

Detailed splicing instructions are included with all shipments.

Splicing Technology

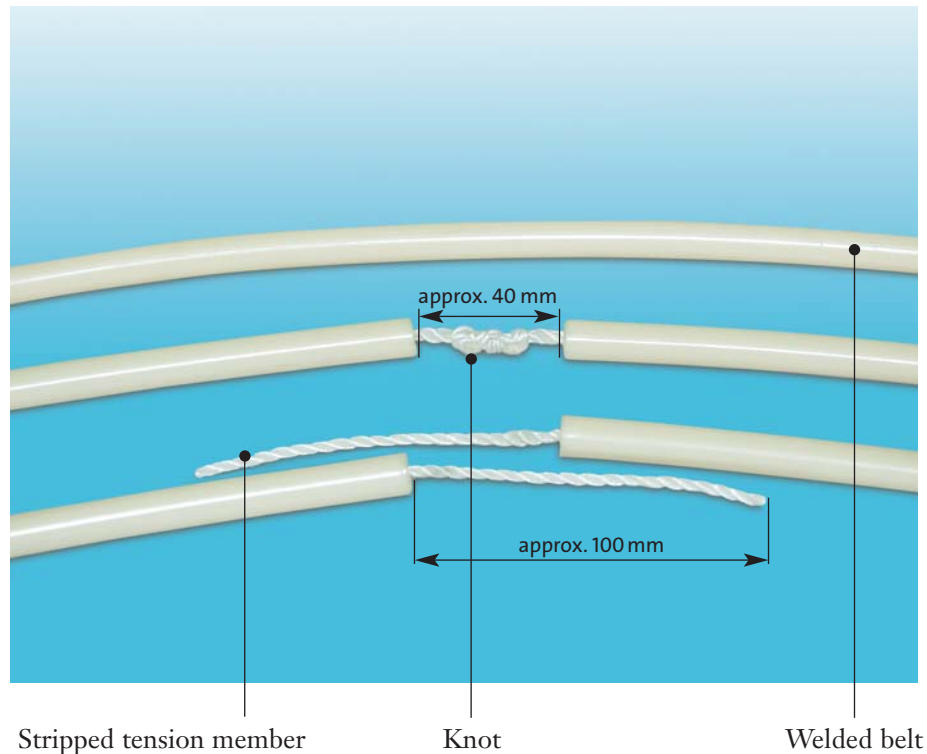
Knot Splice

High-quality NSW thermoplastic profile belts with polyester or Kevlar® reinforcement are easy to splice on- or off-site. The belts are cut 160 mm longer than required. The tension members are stripped and prepared for knot connection with the stripping tool and pliers. The ends of the tension members are knotted together. The belt is then placed in the welding tool and welded with a polyurethane elastomer or polyester elastomer welding material.

Knot splicing of NSW profile belts with polyester or Kevlar® tension members.

Required components:

- Welding tool
- Stripping tool
- Pliers



The following NSW profile belts with polyester or Kevlar® reinforcement can be joined by means of knot splices:

- Round belts 8 - 9.5 - 10 - 12 - 15 mm
- V-belts 13 - 17 - 22 mm

Detailed splicing instructions are included with all shipments.

Splicing Technology

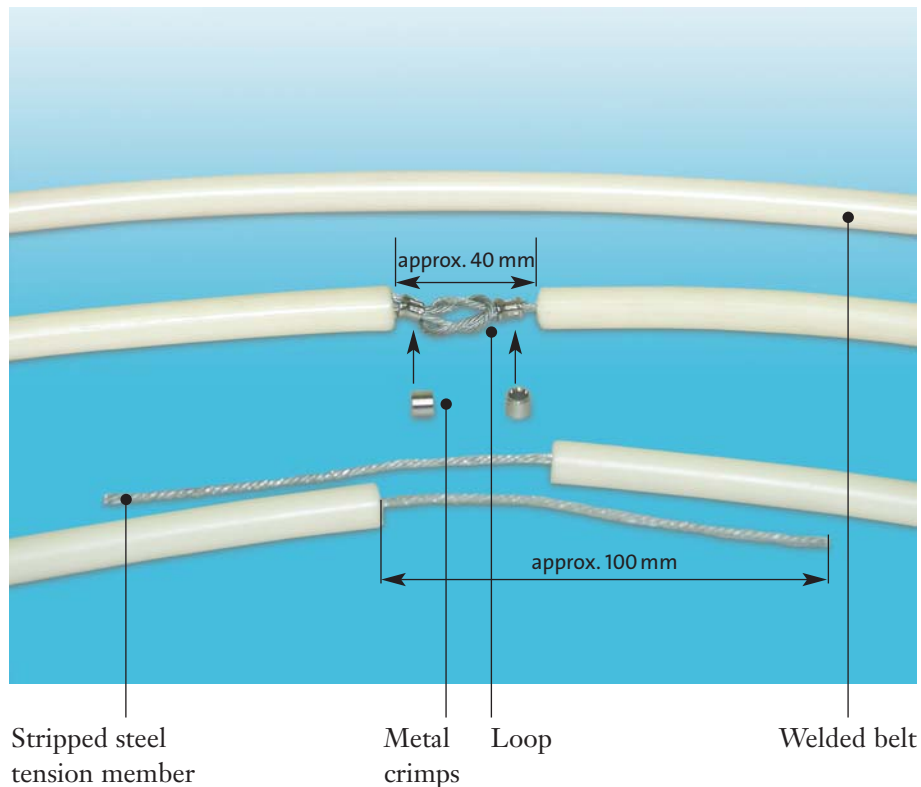
Loop Splice

Round belts with steel reinforcement tension members can be joined on- or off-site easily by using a loop to ensure reliable high force transmission. The belts should be cut 160 mm longer than required. The tension members are stripped ready for welding using the stripping tool and pliers. After inserting a metal crimp at each end, the steel members are looped together. The ends of the tension members are secured with crimps. The belt is placed in the welding tool and welded with a polyurethane elastomer or polyester elastomer welding material.

Loop splicing of round belts with steel reinforcement tension members.

Required components:

- Welding block
- Stripping tool
- Pliers
- Crimping pliers
- Metal crimps



Loop splicing of steel-reinforced round belts is suitable for:

- Reinforced round belts 8 - 9.5 - 10 - 12 mm

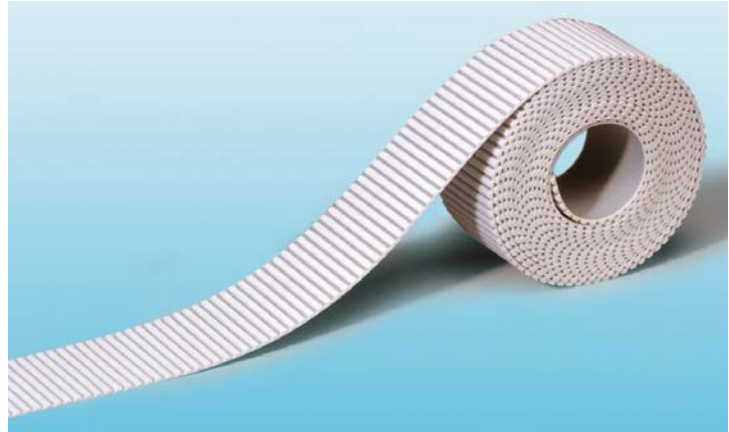
Detailed splicing instructions are included with all shipments.

NSW Timing Belts

Other NSW Conveying Technology Products

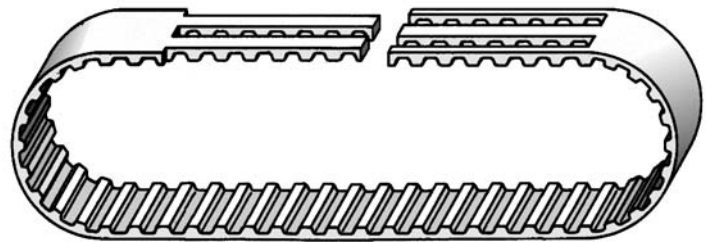
SECA® Timing Belts

- Available cut to length



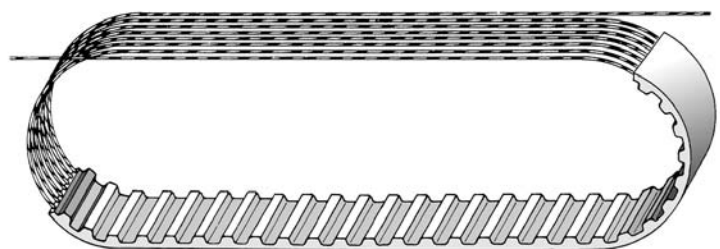
SECA® Timing Belts

- Finger-spliced to form closed (endless) loops



SECAflex® Extra High Performance Timing Belts

- Produced in closed (endless) loops



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