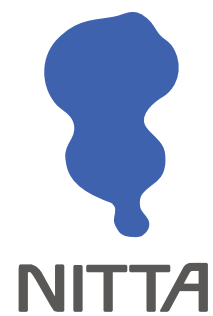
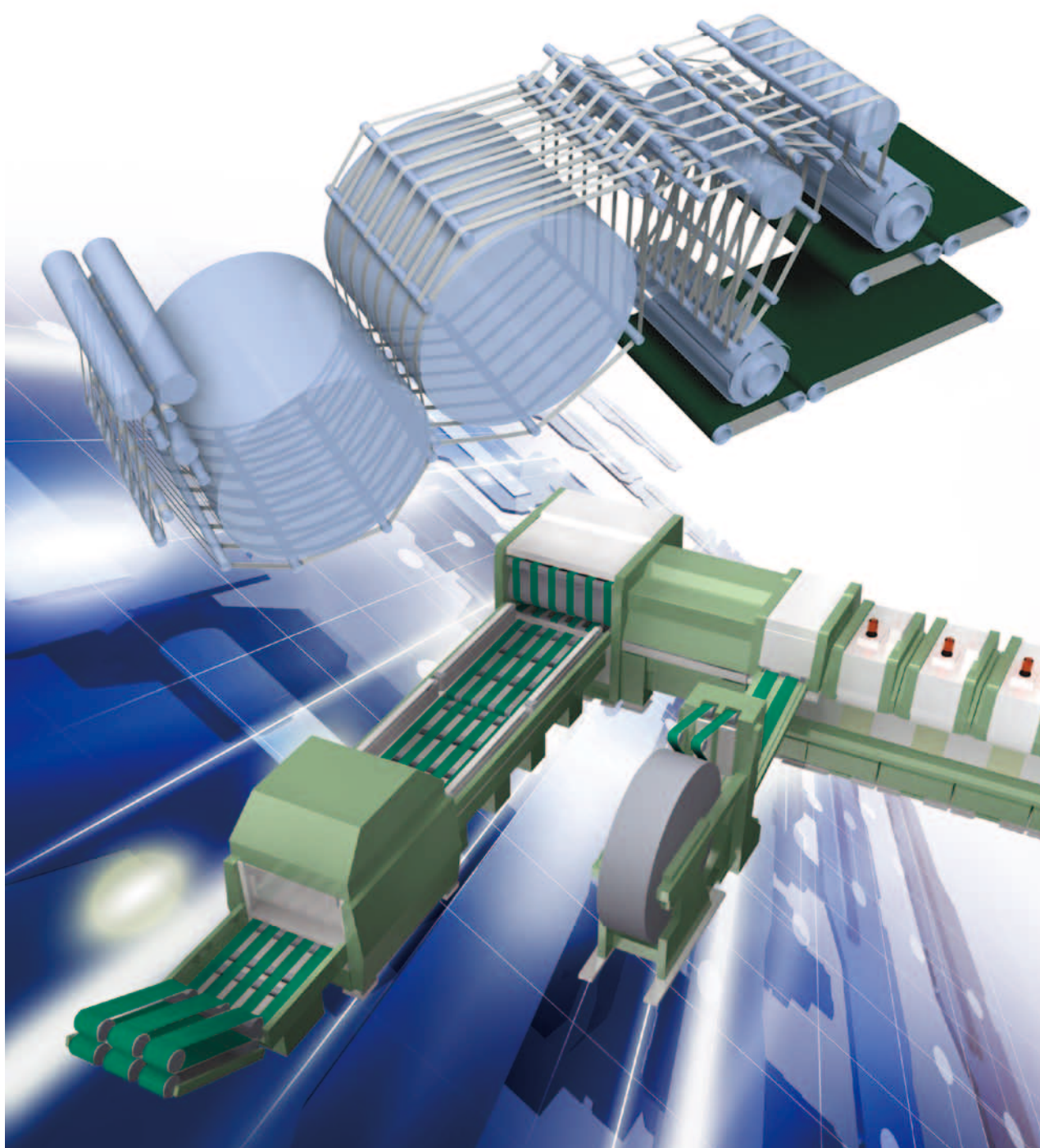


Belts for
Printing and Bookbinding industry



B-PA-04E



The NITTA Advantage-Innovative Products and Solutions

Wide Variety

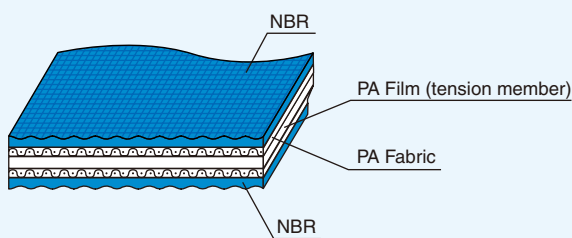
Long Life

Abrasion Resistance

High Flexibility

Anti-Static

PolyBelt™



Standard Elongation=1%

Nomenclature

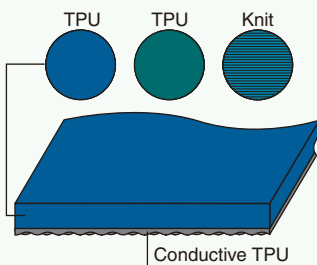
PA Film Thickness in mm × 1000
(0.5 × 1000 = 500)

SG	—	500
L	—	350

[Surface]
SG: Coated Fabric
L: Light
M: Medium
H: Heavy

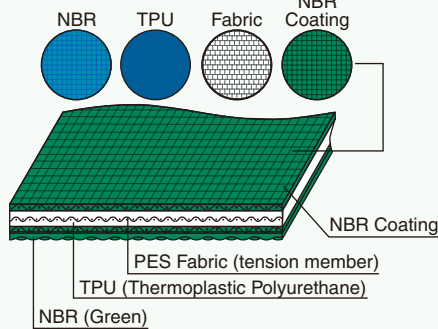
PolySprint™

●Elastic Type



Standard Elongation=5%

●Polyester fabric member type



Standard Elongation=1%

Nomenclature

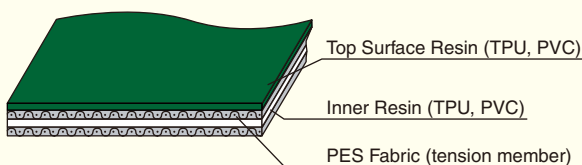
Belt Thickness in mm × 10

LA	—	4E	14
TTE	—	4E	18
FZ	—	5E	12

[Surface]
LA: Blue NBR on Both Surfaces
TTE: Special Fabric
FZ: Special Fabric + NBR on Back Surface

Belt Tension in N/mm
(1% Elongation at 200 hrs running)

NLG™



Standard Elongation =0.5% (Depending on type)

Nomenclature

[Belt Construction]
A: Resin/Fabric
D: Fabric/Fabric
K: Not Anti-Static

GU	—	12	A
GUF	—	12	AK

[Strength (N/mm) ÷ 10]

[Surface]
GU: Green TPU
GUF: Green TPU + Fluororesin Sheet
GUTW: Green TPU + Textured Pattern



Super-strong polyamide core, extended-life skived joining, high operating duty cycles

- **High Strength, Long Life** – High flexibility and rugged design for heavy-duty applications. Polyamide core accommodates shock loads, and wide choice of covers provide abrasion resistance, giving long, dependable service.
- **Electrically Conductive** – Materials with anti-static properties are used in specific layers to provide permanent conductivity, eliminating build-up of electro-static charges.
- **Environmental Resistance** – Selected materials are not susceptible to oil contamination. They demonstrate high energy efficiency and maintain high friction resistance. Covers and polyamide core are designed for printing and paper processing with high tear resistance in folder, sheeter and finishing line paper jams.

Finger-spliceable, easy installation, quick-melt urethane, high-strength polyester core

- **Ease of Joining** – A single action Nitta cutter eliminates the tedious task of multiple cuts that can lead to mismatched and non-aligned joints. Finger-splice joints are completed without adhesive. Nitta presetter guiderails assure alignment.
- **Dimensional Stability** – Polyester fabric used as tension member provides high dimensional stability. Selected materials are temperature and humidity tolerant.
- **Abrasion Resistance** – High temperature friction resistant covers and fabric exclusively designed for printing and paper.

Hundreds of configurations, wide variety of surfaces

- **Extensive Selection** – Nitta NLG (New Light Grip) and other product categories offer many possible options.
- **Many Applications** – Light-/medium-duty use throughout pressrooms and binderies.

Specifications

Products	Belt type	Thickness (mm)	Surface *1 (Top/Bottom)	Tension member *2	Minimum pulley diameter (mm)	Tension @ standard Elongation (N/mm) *3	Standard Elongation (%)	Recommended Elongation (%)	Weight (kg/m ²)	Antistatic	Temperature Range (°C)	Maximum width (mm)
PolyBelt	SG-250	0.8	NBR Coating Fabric/NBR Coating Fabric	PA	φ 25	1.5	1	1~3	0.8	○	-20~+80	300
	SG-350	0.95	NBR Coating Fabric/NBR Coating Fabric	PA	φ 35	2.6	1	1~3	0.9	○	-20~+80	300
	SG-500	1.1	NBR Coating Fabric/NBR Coating Fabric	PA	φ 50	3.75	1	1~3	1.1	○	-20~+80	300
	SGL-500	1.3	NBR Coating Fabric/NBR	PA	φ 50	3.75	1	1~3	1.4	○	-20~+80	300
	SG-750-2P	1.1	PA /NBR Coating Fabric	PA	φ 50	5.6	1	1~3	1.2	—	-20~+80	300
	L-250	1.25	NBR/NBR	PA	φ 25	1.5	1	1~3	1.4	○	-20~+80	300
	L-350	1.4	NBR/NBR	PA	φ 35	2.6	1	1~3	1.6	○	-20~+80	300
	L-500	1.55	NBR/NBR	PA	φ 50	3.75	1	1~3	1.8	○	-20~+80	300
	KCS-350	1.1	PA Fabric/NBR Coating Fabric	PA	φ 35	2.6	1	1~3	0.8	○	-20~+80	300
	KCS-500	1.2	PA Fabric/NBR Coating Fabric	PA	φ 50	3.75	1	1~3	1.0	○	-20~+80	300
	LS-350	1.2	NBR/NBR Coating Fabric	PA	φ 35	2.6	1	1~3	1.2	○	-20~+80	300
	LS-500	1.35	NBR/NBR Coating Fabric	PA	φ 50	3.75	1	1~3	1.4	○	-20~+80	300
	IRTA-350	1.15	NBR/PA Fabric	PA	φ 35	2.6	1	1~3	1.2	○	-20~+80	300
	GLTA-350	1.45	NBR/PA Fabric	PA	φ 35	2.6	1	1~3	1.6	○	-20~+80	300
PolySprint	TTE-4E18	1.8	Special Fabric/Special Fabric	PE	φ 40	4.0	1	0.5~2	1.7	○	-20~+60	100
	TTF-4E10	1.0	Special Fabric/Special Fabric	PE	φ 15	4.0	1	0.5~2	1.0	○	-20~+60	100
	TTZ-4E10	1.0	Special Fabric(NBR coating)/Special Fabric(NBR coating)	PE	φ 30	4.0	1	0.5~2	1.0	○	-20~+60	100
	FZ-5E12	1.25	Special Fabric(NBR coating) /NBR	PE	φ 35	5.0	1	0.5~2	1.2	○	-20~+60	100
	LA-4E14	1.4	NBR/NBR	PE	φ 25	4.0	1	0.5~2	1.5	○	-20~+60	100
	LA-15E20	2.0	NBR/NBR	PE	φ 40	15.0	1	0.5~2	2.2	○	-20~+60	100
	W-4E14	1.4	TPU/TPU	PE	φ 25	4.0	1	0.5~2	1.6	○	-20~+60	100
	DB-4E14	1.4	TPU/TPU	PE	φ 25	4.0	1	0.5~2	1.6	○	-20~+60	100
	SLA-8E14	1.4	NBR/NBR	PE	φ 25	8.0	1	0.5~2	1.7	○	-20~+60	100
	TA09	0.9	TPU/TPU	—	φ 20	0.5	5	3~8	0.9	○	-20~+60	100
	TA12	1.2	TPU/TPU	—	φ 25	0.7	5	3~8	1.1	○	-20~+60	100
	TA-S6	0.9	TPU/TPU	Knit	φ 25	0.7	5	3~8	1.0	○	-20~+60	100
	HTA09	0.9	Hard TPU/TPU	—	φ 25	0.5	5	3~8	0.9	○	-20~+60	100
	NTA	1.0	Knit/TPU	—	φ 25	0.5	5	3~8	0.9	○	-20~+60	100
	STC-10	1.35	Knit/TPU	—	φ 25	0.5	5	3~8	1.3	○	-20~+60	100
TC	1.4	TPU/TPU	—	φ 40	0.8	5	3~8	1.5	○	-20~+60	100	
NLG	GUF-12AK	1.3	Fluoresin/PE	PE	φ 50	2.0	0.5	0.3~1	1.3	—	-20~+80	1000
	GUH-12A	1.3	Hard TPU/PE	PE	φ 30	2.0	0.5	0.3~1	1.3	○	-20~+80	1500
	GUTW-12A	1.8	TPU/PE	PE	φ 30	2.0	0.5	0.3~1	1.7	○	-20~+80	1500
	GU-12A	1.3	TPU/PE	PE	φ 20	2.0	0.5	0.3~1	1.3	○	-20~+80	1500
	GUSR-14ANL	2.1	Soft TPU/PE	PE	φ 40	2.0	0.5	0.3~1	1.8	○	-20~+80	1500
	GU-12D	1.1	PE/PE	PE	φ 40	2.0	0.5	0.3~1	1.0	○	-20~+80	1500
	GU-12DS	1.0	Special Fabric/PE	PE	φ 40	2.0	0.5	0.3~1	1.0	○	-20~+80	1500

*1 Also possible to use the reverse side depending on application.

*2 Material PA:Polyamide Film PE:Polyester Fabric TPU:Thermoplastic Polyurethane NBR:Nitrile Rubber

*3 Tension measured after running for 200 hours.

Printing processes				Bookbinding processes				Conveyor	Features	Finger Splice	Skiver Splice	Splicing Tool Number (Page 9-10)
Offset Sheet Fed Press	Offset Web Press	Gravure Rotary Press	Newspaper Rotary Press	Collator	Folding machine	Saddle stitcher line	Bookbinder					
●								Moderate slip, strong grip		●	12 · 13	
●			●	●		●	●	Moderate slip, strong grip		●	12 · 13	
●	●				●	●		Moderate slip, strong grip, flange resistance, high-speed application		●	12 · 13	
	●							Moderate slip, strong grip, flange resistance, high-speed application		●	12 · 13	
			●					Ink-repellent, flange resistance		●	12 · 13	
							●	Stable coefficient of friction and high abrasion resistance.		●	12 · 13	
	●				●		●	Stable coefficient friction and high abrasion resistance.		●	12 · 13	
	●				●			Flange resistance, high-speed application		●	12 · 13	
	●							Top is high slip, Bottom is moderate coefficient of friction		●	12 · 13	
	●					●		Top is high slip, Bottom is moderate coefficient of friction		●	12 · 13	
					●			Stable coefficient of friction and high abrasion resistance.		●	12 · 13	
					●			Stable coefficient of friction and high abrasion resistance.		●	12 · 13	
	●							Top is high coefficient of friction, Bottom is high slip		●	12 · 13	
	●						●	Top is high coefficient of friction, Bottom is high slip		●	12 · 13	
		●	●		●			Quick and Easy splicing, abrasion-resistance	●		1 · 6 · 8 · 9 · 10	
	●					●	●	Quick and Easy splicing, soft surface	●		1 · 6 · 8 · 9 · 10	
	●	●		●	●	●	●	Quick and Easy splicing, moderate and strong grip	●		1 · 6 · 8 · 9 · 10	
	●	●		●	●	●	●	Quick and Easy splicing, moderate and strong grip	●		1 · 6 · 8 · 9 · 10	
					●	●	●	Quick and Easy splicing, general use, high flexibility	●		1 · 6 · 8 · 9 · 10	
				●				Quick and Easy splicing, high flexibility, high tension	●		3 or 5 · 7 · 9 · 10	
							●	Quick and Easy splicing	●		1 · 6 · 8 · 9 · 10	
							●	Quick and Easy splicing	●		1 · 6 · 8 · 9 · 10	
				●	●			Quick and Easy splicing, high flexibility, high tension	●		2 or 4 · 7 · 9 · 10	
					●	●	●	Quick and Easy splicing, elastic type, thin type	●		1 · 6 · 8 · 9 · 10	
					●	●	●	Quick and Easy splicing, elastic type	●		1 · 6 · 8 · 9 · 10	
					●	●	●	Quick and Easy splicing, elastic type, high tear resistance	●		1 · 6 · 8 · 9 · 10	
					●	●	●	Quick and Easy splicing, elastic type, moderat slip	●		1 · 6 · 8 · 9 · 10	
					●	●		Quick and Easy splicing, elastic type, moderat slip	●		1 · 6 · 8 · 9 · 10	
					●	●		Quick and Easy splicing, elastic type, moderat slip	●		1 · 6 · 8 · 9 · 10	
					●	●		Quick and Easy splicing, elastic type, high tension	●		1 · 6 · 8 · 9 · 10	
							●	Slipping of the belt surface, non-stick surface, ink-repellent	●	●	—	
							●	Slipping of the belt surface, abrasion resistance	●	●	—	
							●	Stable and high coefficient of friction	●	●	—	
							●	General use	●	●	—	
							●	Strong grip due to coefficient of friction, slant conveyor	●	●	—	
							●	Slipping of the belt surface		●	—	
							●	Soft surface, slipping of the belt surface		●	—	

Notes: Minimum endless length is 400mm.(except SLA-8E14, LA-15E20, which are 1000mm)
Please contact us for Minimum endless length of NittaBeltPoly and NLG
Please contact us for NLG splicing tools

Belts for Web Press

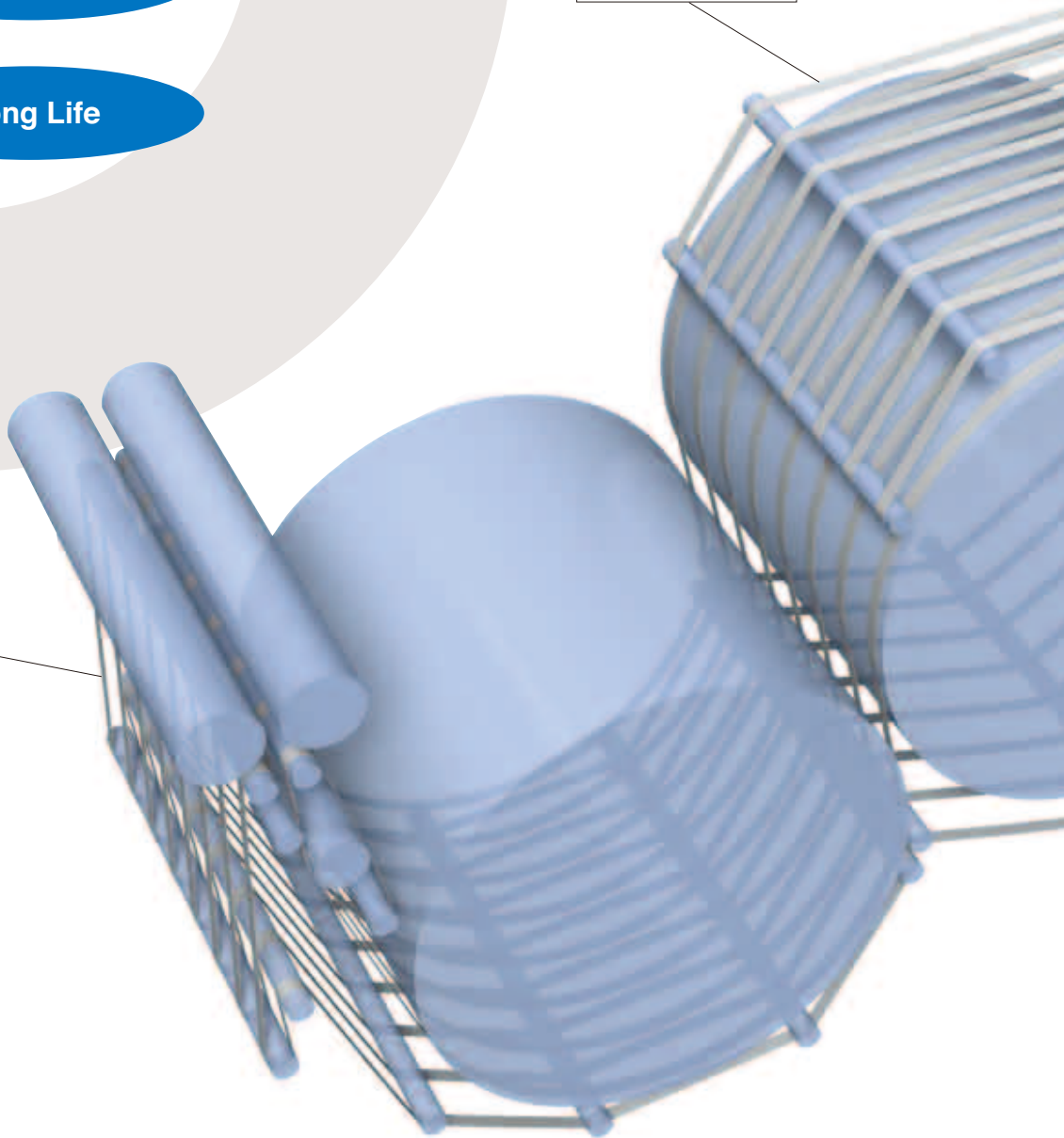
Abrasion Resistance

High Accuracy in Conveyance

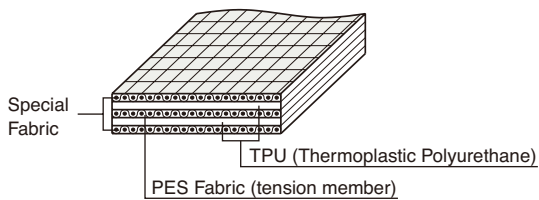
Long Life

No.2 Delivery Part

No.1 Acceleration Part
(Short/Long)



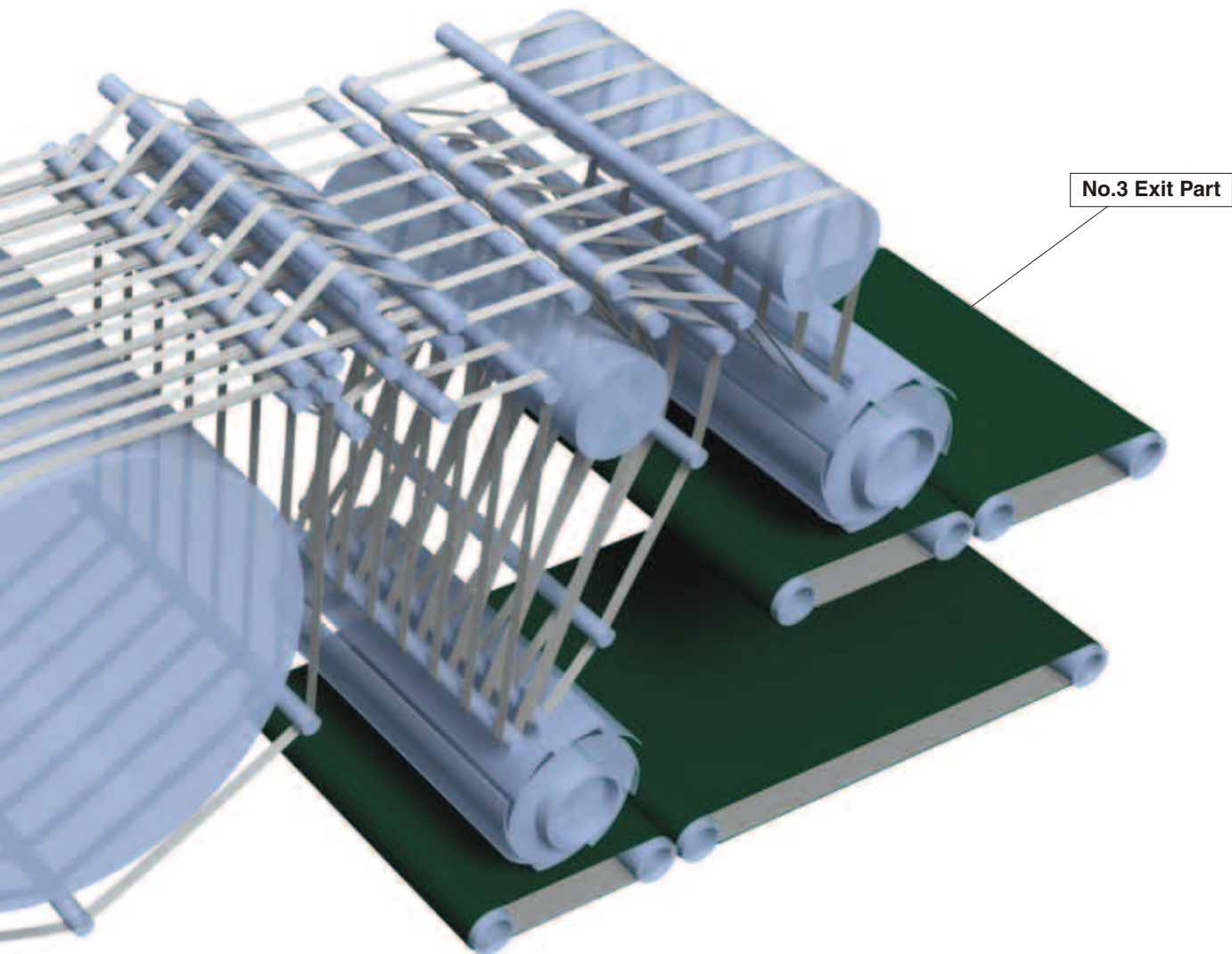
PolySprint™ TTE-4E18



- Highly abrasion resistant fabric on the surface
- Polyester fabric tension member protected by the inner layers



Prevent drastic tension change due to worn fabric on the surface



Gravure Rotary Press

No.	Part	Recommended Belt Type	Features
1	Acceleration (Short/Long)	PolySprint TTE-4E18	Durable joints and abrasion resistance
2	Delivery	PolySprint TTE-4E18	Durable joints and abrasion resistance
3	Exit	NLG GUSRB-14ANL, GUTW-12A	Strong grip due to coefficient of friction

Offset Sheet-Fed Press

Part	Recommended Belt Type	Features
Sheet Feeder	PolyBelt SG type, KCS type, etc., PolySprint FZ-5E12, TTZ-4E10, etc.	Abrasion resistance, stable coefficient of friction

Offset Web Press

Part	Recommended Belt Type	Features
Folder	PolyBelt SG type, KCS type, L type PolySprint TTZ-4E10	Moderate slip, abrasion resistance, flange resistance
Chopper	PolySprint FZ-5E12, PolyBelt	Moderate slip, abrasion resistance, flange resistance, high tension
Exit	Conveyor, NLG	Strong grip due to coefficient of friction

Belts for Bookbinding

Features

Friction Coefficient Suitable for Conveying Paper

- Stable conveyance, abrasion resistance.

Soft Fabric on the Surface Avoids Damage to paper

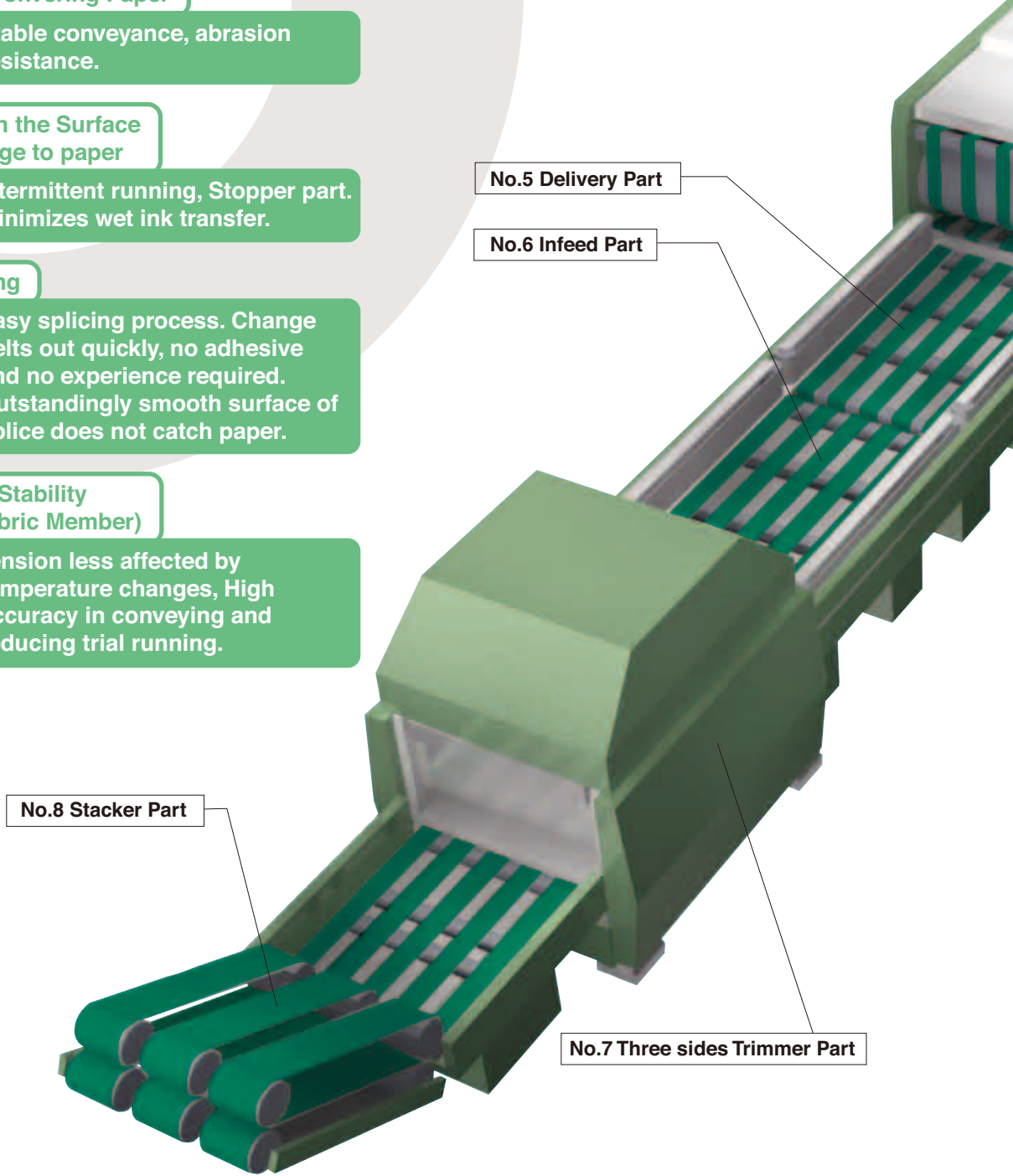
- Intermittent running, Stopper part. Minimizes wet ink transfer.

Finger Splicing

- Easy splicing process. Change belts out quickly, no adhesive and no experience required.
- Outstandingly smooth surface of splice does not catch paper.

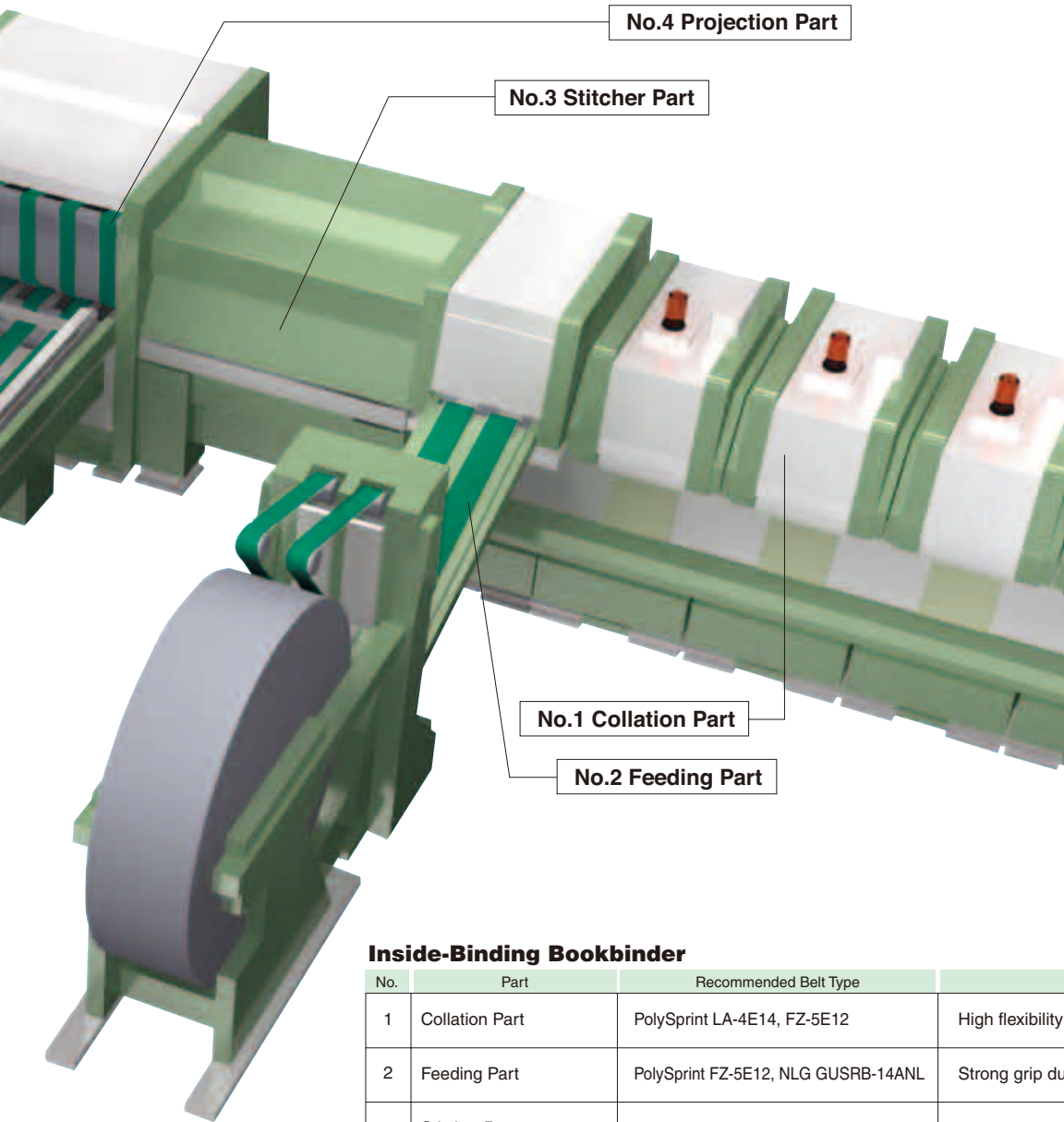
Dimensional Stability (Polyester Fabric Member)

- Tension less affected by temperature changes, High accuracy in conveying and reducing trial running.



Collator

Part	Recommended Belt Type	Features
Vertical Conveyance	PolySprint LA-4E14, SLA-8E14	Stable coefficient of friction
Exit	PolySprint TA09, TA12, HTA	Elastic type, stable tension



Inside-Binding Bookbinder

No.	Part	Recommended Belt Type	Features
1	Collation Part	PolySprint LA-4E14, FZ-5E12	High flexibility
2	Feeding Part	PolySprint FZ-5E12, NLG GUSRB-14ANL	Strong grip due to coefficient of friction
3	Stitcher Part	_____	_____
4	Projection Part	PolySprint FZ-5E12, TTZ-4E10	Strong grip, abrasion resistance
5	Delivery Part	PolySprint FZ-5E12, TTZ-4E10	Stable coefficient of friction, flange resistance
6	Infeed Part	PolySprint FZ-5E12, TTZ-4E10	Stable coefficient of friction, twist resistance
7	Three sides Trimmer Part	PolySprint TTF-4E10, FZ-5E12	Soft Surface, High flexibility
8	Stacker Part	PolySprint FZ-5E12	Stable coefficient of friction, flange resistance

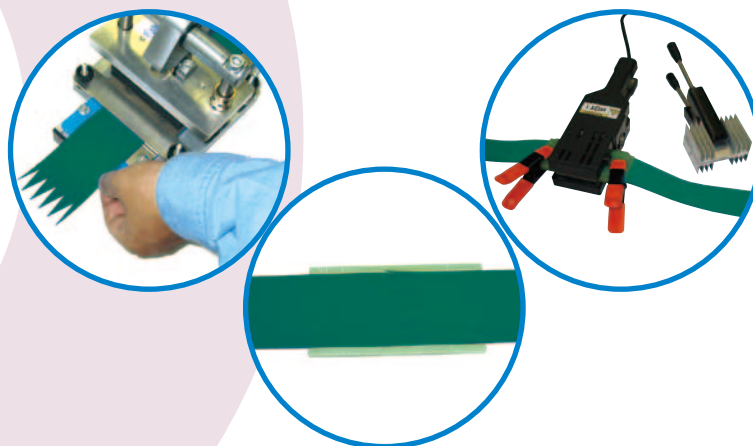
Folding machine

Part	Recommended Belt Type	Features
Feeding	PolySprint LA-4E14, SLA-8E14, FZ-5E12, PolyBelt	Stable coefficient of friction
Hold	PolySprint FZ-5E12, etc., PolyBelt	Moderate slip, abrasion resistance, flange resistance

Splicing Tools (*PolySprint™* , *PolyBelt™*)

for *PolySprint™*

PolySprint™ tools make replacing broken belts quick and easy, with minimal downtime and no need to disassemble the machine



Quick and Easy Splicing
(No Experience Required)

Finger Splicing
(No Adhesive Needed)



● Finger Puncher

Item No	Type	Appearance	Features	Max Belt Width (mm)	Max Belt Thickness (mm)	Size (mm)			Wt. (kg)	Finger Length × Pitch (mm)
						Width	Length	Height		
1	FP30-10-50N		Single action punching system	50	2.0	135	400	390	3.4	30×10
	FP30-10-100		Single action punching system	100	2.0	200	500	504	7.0	30×10
2	FP70-10-50		Precise indexing system, Allows user to punch aligned 10mm pitch fingers in stages across the width of the belt	50	6.0	180	600	250	9.0	70×10
3	FP120-10-50									120×10
4	FP70-10-100		Precise indexing system, Allows user to punch aligned 10mm pitch fingers in stages across the width of the belt	100	6.0	230	610	250	10.4	70×10
5	FP120-10-100									120×10

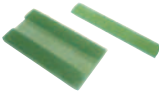


● Heating Press

Item No	Type	Appearance	Features	Max Belt Width (mm)	Max Belt Thickness (mm)	Size (mm)			Wt. (kg)	Finger Length × Pitch (mm)	Power	Temp. (°C)
						Width	Length	Height				
6	NPS-3050 H1 ^(PSE)		Heat press for Finger Splicing, Heat press with digital temperature readout	50	2.0	84	250	100	1.5	30×10	100V	~200
	NPS-3050 H2 ^(CE)										200V	
	NPS-0310 H1 ^(PSE)		Heat press for Finger Splicing, Heat press with digital temperature readout	100	2.0	107	365	112	4.1	30×10	100V	~200
	NPS-0310 H2 ^(CE)										200V	
7	NPS-1210-1 ^(PSE)		Automated heating and cooling press	100	6.0	230	320	180	9.5	70×10 120×10	100V	~200
	NPS-1210-2 ^(CE)										200V	

●Cooling Press


Item No	Type	Appearance	Features	Max Belt Width (mm)	Max Belt Thickness (mm)	Size (mm)			Wt. (kg)	Finger Length X Pitch (mm)
						Width	Length	Height		
8	NPS-3050C		Cooling press for Finger Splicing no power required	50	2.0	80	224	92	0.6	30X10
	NPS-0310C		Cooling press for Finger Splicing no power required	100	2.0	102	311	102	2.4	30X10

●Accessories



Item No	Type	Appearance	Features
9	Presetter		Guide rails to hold joint straight when pressing
10	Clamp (2 Pieces)		Clamps for holding presetter together when pressing (Press 6and8)
11	PolySprint Toolkit Complete 30mm Finger Joining Kit		FP-30-10-50N, NPS-3050H, NPS-3050C, Presetter, Clamps and Case

for PolyBelt™

●Poly Skiver

Item No	Type	Appearance	Features	Max Belt Width (mm)	Max Belt Thickness (mm)	Size (mm)			Wt. (kg)	Power
						Width	Length	Height		
12	PS153		PolyBelt skiver for making a skived splicing. Highly reliable and widely accepted	150	3.0	400	380	435	33	100V or 200V

●Poly Press

Item No	Type	Appearance	Features	Max Belt Width (mm)	Max Belt Thickness (mm)	Size (mm)			Wt. (kg)	Power	Temp. (°C)
						Width	Length	Height			
13	PP051 (PI-50) ^(PS E)		PolyBelt press for skiver splicing Lightweight, easy to use and popular	50	2.5	112	160	90	1.3	100V or 200V	110
	PP103 ^(PS E)		PolyBelt press for skiver splicing Highly reliable and widely accepted	100	5.0	140	295	150	3.1	100V or 200V	110

※ PolyBelt splicing tools require the correct type of chemical adhesive (polybond) for the belt being made endless.

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