Avery Dennison[®] IndES[®] Elastic Staple[®] System

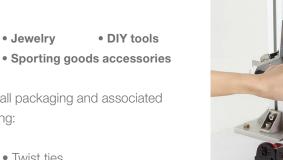
Flexibility for a Variety of Packaging Options

The unique design of the Avery Dennison IndES Elastic Staple System secures items to flat card surfaces or multi-level card packaging designs. With fastener lengths ranging from 15mm to 200mm and tensile grades ranging from standard to heavyduty, these pliable staples stretch to a wide variety of product shapes and sizes. This flexible system can be used as a stand-alone unit or integrated into automated high volume packaging lines to position and securely hold products on a backing card or within a package, such as:

• Toys

Home textiles

- Socks Kitchen utensils
- Jewelry
- The IndES Elastic Staple System helps reduce overall packaging and associated costs while improving productivity compared to using:
- Clamshells • Cable ties Blister packs
 Twist ties



Pieces Per Hou 8 14 Install Time of Two

Paper

Tie with

Adhesive

Tape

Clear

PVC

Strap

Plastic

Twist Tie

IndES

Elastic

Staple

In Seconds

Faster Packaging for Greater Productivity

Replacing conventional manual packaging methods with the Avery Dennison IndES Elastic Staple System can:

- Decrease downtime by reducing time and steps in packaging production .
- Reduce operator workload
- Reduce packaging materials ۲

PACKAGING METHODS Estimates based on internal testing. Application of two fasteners to attach a product to a backing card.

Sustainable Packaging

Water and energy use, solid waste production, and CO2 emissions are reduced when compared to conventional packaging methods such as plastic cable ties and paper twist ties. Using the IndES Elastic Staples can eliminate excess packaging and reduce the amount of materials being transported.

In addition to this, our Ecotach™ Elastic Staples can help reduce waste by reducing the amount of single-use plastic that would go into a landfill environment.

Ecotach Elastic Staples are made from a proprietary blend of thermoplastic polyurethane material specifically designed to degrade* at an accelerated rate of 10.63% over 45 days in landfill conditions. The technology used results in no microplastics* so that when this staple completely degrades, all that is left is carbon dioxide, water, and microbes (biomass). Comparatively speaking, a typical thermoplastic polyurethane fastener would degrade ~0% over the same time frame and take anywhere from 20 -30 years to break down, depending on environmental conditions.

Once the Ecotach Elastic Staple is placed into a landfill, naturally occurring bacteria in that environment breaks the fastener down without leaving behind microplastics or any other harmful substances.* These products are shelf-stable and will not begin to degrade unless put into the designated end-of-life waste stream.

*We have completed 3rd party ASTM D5511-18 testing that shows that our Ecotach Elastic Staples degrade 10.63% over 45 days in a landfill environment. We do not have data showing how much time it takes for the fasteners to completely degrade.



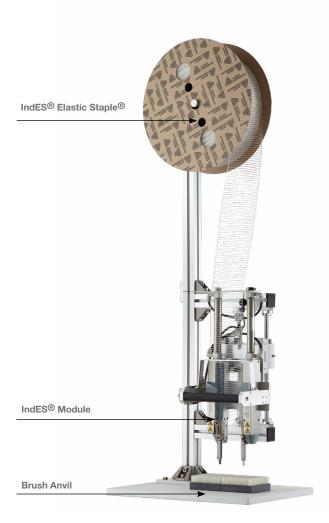




Technical Specifications

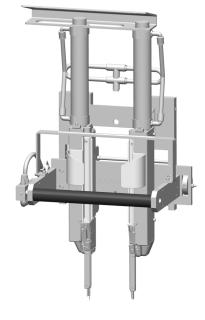
IndES[®] Elastic Staple[®] System

IndES[®] Elastic Staple[®] Module



The IndES Elastic Staple System has an adjustable feature that allows the operator to apply a single staple or double staple in a single actuation.

Avery Dennison also offers a Reinforced Backing Solution[™] as an additional option for fastening bulky or heavy weight products when using the IndES Elastic Staple System. To learn more about this option <u>watch this video.</u>

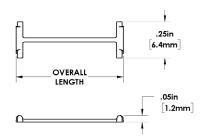


IndES [®] Module with Handle Part# 11601-0		
Gross Weight	5.7kg (12.6lbs)	
Overall Dimensions	54cm x 27.2cm x 18.6 cm (21.29" x 10.7" x 7.32")	
Operating Pressure	0.28MPI (40 psi) – 0.55MPI (80 psi)	
Cycle Speed	0.6 seconds	
*Min. Needle Spacing	12.7mm (.50")	
*Max. Needle Spacing	160mm (6.30")	

Reinforced Backing Solution™ (Optional)	
Part #	Description
11608-0	Module Set only
11607-0	Full Solution

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Part #	Part #	Part# Ecotach™		Overa	II Length	*Minimum	Elongation	Qty Per Reel
Natural	Black	Natural	Class	MM	INCH	MM	INCH	
11625-2	11645-1	11750-0	Standard	15	1/2	25.4	1.00	15,000
11626-2	11646-1	11751-0	Standard	19	3/4	25.4	1.00	15,000
11627-2	11647-1	11752-0	Standard	25	1	44.5	1.75	15,000
11628-2	11648-1	11753-0	Standard	30	1-3/16	44.5	1.75	15,000
11629-2	11649-1	11754-0	Standard	33	1-1/4	44.5	1.75	15,000
11630-2	11650-1	11755-0	Standard	37	1-1/2	44.5	1.75	15,000
11631-2	11651-1	11756-0	Standard	41	1-5/8	44.5	1.75	15,000
11632-2	11652-1	11757-0	Standard	44	1-3/4	82.5	3.25	15,000
11633-2	11653-1	11758-0	Standard	50	2	82.5	3.25	15,000
11634-2	11654-1	11759-0	Standard	54	2-1/8	82.5	3.25	15,000
11635-2	11655-1	11760-0	Standard	58	2-1/4	82.5	3.25	15,000
11636-2	11656-1	11761-0	Standard	64	2-1/2	101.5	4.00	15,000
11637-2	11657-1	11762-0	Standard	68	2-5/8	101.5	4.00	15,000
11638-2	11658-1	11763-0	Standard	73	2-7/8	101.5	4.00	15,000
11639-2	11659-1	11764-0	Standard	75	2-15/16	101.5	4.00	15,000
11640-2	11660-1	11765-0	Standard	80	3-1/8	101.5	4.00	15,000
11641-2	11661-1	11766-0	Standard	85	3-3/8	190.5	7.50	15,000
11642-2	11662-1	11767-0	Standard	90	3-1/2	190.5	7.50	15,000
11643-2	11663-1	117678-0	Standard	95	3 - 3/4	190.5	7.50	15,000
11644-2	11664-1	117679-0	Standard	100	3 – 15/16	190.5	7.50	15,000
11685-0	11690-0		Standard	110	4 - 5/16	190.5	7.50	10,000
11686-0	11691-0		Standard	120	4 -3/4	190.5	7.50	10,000
11687-0	11692-0		Standard	130	5 – 1/8	190.5	7.50	10,000
11688-0	11693-0		Standard	140	5 -1/2	190.5	7.50	10,000
11689-0	11694-0		Standard	150	5 -7/8	190.5	7.50	10,000
11710-0			Standard	165	6 - 1/2	220	8.66	10,000
11711-0			Standard	180	7 - 3/16	220	8.66	10,000
11712-0			Standard	200	7 – 7/8	220	8.66	10,000
11720-1	11730-1		Heavy Duty	25	1	44.5	1.75	15,000
11721-1	11731-1		Heavy Duty	37	1-1/2	44.5	1.75	15,000
11722-1	11732-1		Heavy Duty	45	1-3/4	82.5	3.25	15,000
11723-1	11733-1		Heavy Duty	54	2-3/16	82.5	3.25	15,000
11724-1	11734-1		Heavy Duty	64	2-9/16	101.5	4.00	15,000
11725-1	11735-1		Heavy Duty	75	2-15/16	101.5	4.00	15,000
11726-1	11736-1		Heavy Duty	90	3 - 9/16	190.5	7.50	15,000
11727-1	11737-1		Heavy Duty	100	3 – 15/16	190.5	7.50	15,000



Elastic Staple®	
Standard Staple Tensile Strength:	5.0 lbf Minimum (2.27kgf)
Heavy Duty Staple Tensile Strength:	6.0 lbf Minimum (2.72kgf)
Material:	Thermoplastic Polyurethane
Weight:	0.026 min / 0.077max grams
Package:	10,000 or 15,000 Per Reel
Staple Temperature Range	60°C (140°F) to -26°C (-15°F)
Standard Staple Application Machine(s):	11600 IndES® Module (All staple sizes) 10790, VNS & 10797, SNS (All sizes except 85mm – 100mm)
Heavy Duty Staple Application Machine(s):	11601,11606 IndES® Module (All staple sizes) 11603 IndES $^{\rm B}$ Hosiery Benchmount (All staple sizes)

IndES [®] Needles and Accessories		
Part #	Description	
11606-0	IndES [®] module without handle	
11616-0	Spring Mounting Stand	
11618-0	Non Tapered Needle	
11619-0	Tapered Needle	
10751-0	Brush Anvil 102mm x 102mm, 4" x 4"	
11610-0	APU Benchtop Unit	
11623-0	Adjustable Needle Spacing Kit	
11609-0	Heavy Duty 101mm Needle	
11621-0	Hosiery Needle	

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Secure and Attractive Packaging

The strong, pliable staples stretch to a wide variety of product shapes and sizes. Unlike cable ties or twist ties, elastic staples are thin and enable a clean appearance of the product when secured to the packaging.

While you can realize gains in production efficiency, the most important advantage of using the IndES Elastic Staple is at the point-of-sale. Consumers can easily read the product information and messages typically displayed on the back of a card. Here's a comparison of packaging using conventional twist ties versus the same packaging using the IndES Elastic Staple system.



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Fastening with Conventional Twist Ties

Elevates the Consumer's Experience

Reduced packaging creates a better view of the product, increasing overall shelf appeal and providing a positive consumer experience both before and after the sale through:

- Improved visuals of the product at the point-of-sale
- Increased customer interaction with the product, which remains securely packaged
- Faster, easier and safer removal of the product

Elevating Brands, Acclerating Performance

To view the IndES Elastic Staple system in action <u>watch this video</u>. For more information visit fastener.averydennison.com, call or email us at <u>fastener@averydennison.com</u>

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Fastening with IndES[®] Elastic Staple[®]

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