Avery Dennison
Fastener Solutions
Product Guide

June 2024

Plastic Staple® ST9500® System

Attach Yourself to a Leader

The Avery Dennison ST9500 System enables high volume tagging and ticketing for a variety of applications ranging from retail identification to manufacturing processes. The plastic staples used in this machine provide the same fastening strength as metal staples yet allow an easy removal if required. This system is intended to maximize productivity and reduce the risk of creating holes and snags when attaching tags to fabrics and other materials.

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Greater Appeal with Less Damage

The ST9500 is suitable for many applications such as:

- High volume tagging of jeans, trousers, and infant wear
- Attaching header cards
- Attaching pocket flashers, waistband tickets and joker tags
- Denim whiskering processes
- Pair and packaging dress socks

Tickets stay in place until removed by the consumer, which means fewer returned garments due to damage caused by ticket removal. Header cards, pocket flashers and waistband tickets look more appealing because of the precise and consistent stapling the system provides.

For the consumer, the Plastic Staple is:

- Easy to remove by hand, with no risk of fabric damage
- Safer than thread bar tacks, there's no need for scissors
- Much safer than metal staples due to no sharp edges and reduced chemical interactions

Increased Speed, Efficiency and Flexibility

Easier than needle-and-thread systems, it automatically feeds fasteners through dual needles, from a continuous reel of 25,000 fasteners. This machine is simple to load and easily adapted to a wide range of applications and materials. The ST9500 is designed to be low maintenance, while providing fast, consistent ticketing with fewer work delays. The ability to adjust actuation speeds, change needle spacing and program cycles adds to this machine's versatility.

Sustainable Staple Options

The Ecotach™ Plastic Staple is made from a proprietary blend of thermoplastic polyurethane material specifically designed to degrade* at an accelerated rate of 11.91% 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 timeframe and take anywhere from 20 -30 years to break down, depending on environmental conditions. Once the Ecotach Plastic 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™ Plastic Staple® degrades 11.91% over 45 days in a landfill environment. We do not have data showing how much time it takes for the fasteners to completely degrade.*

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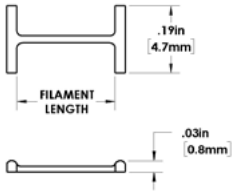
Technical Specifications

Plastic Staple® Fasteners (Polyurethane)

Part #	Plastic Staple® Type	Tensile Strength	Color	Nominal Filament Length	Material	Qty / Reel	Case Qty
15016-0	Standard	2.2 lbf (1.0 kgf)	Clear	0.24" (6.1mm)	Polyurethane	25,000	100,000
15025-0	Standard	2.2 lbf (1.0 kgf)	Clear	0.50" (13.0mm)	Polyurethane	25,000	100,000
15001-0	Standard	2.2 lbf (1.0 kgf)	Clear	0.50" (13.0mm)	Polyurethane	25,000	100,000
15002-0	Standard	2.2 lbf (1.0 kgf)	White	0.50" (13.0mm)	Polyurethane	25,000	100,000
15003-0	Standard	2.2 lbf (1.0 kgf)	Black	0.50" (13.0mm)	Polyurethane	25,000	100,000
15005-0	Standard	2.2 lbf (1.0 kgf)	Orange	0.50" (13.0mm)	Polyurethane	25,000	100,000
15017-0	Heavy Duty	3.0 lbf (1.4 kgf)	Clear	0.50" (13.0mm)	Polyurethane	25,000	100,000



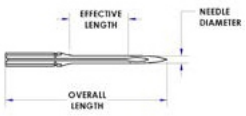
Plastic Staple® Attacher and Accessories

Part #	Item Description	Mounting Details	Pkg Qty
15000-3	ST9500® Attacher - Input AC 100-240 VAC, 50/60 Hz .50A	Wide Base Plate, 1/2" opening	1
15000-2	ST9500® Attacher - Input AC 100-240 VAC, 50/60 Hz .50A	Narrow Base Plate, 3/8" opening	1
15009-0	Foot Pedal - Light Duty		1
10442-0	Foot Pedal - Heavy Duty		1

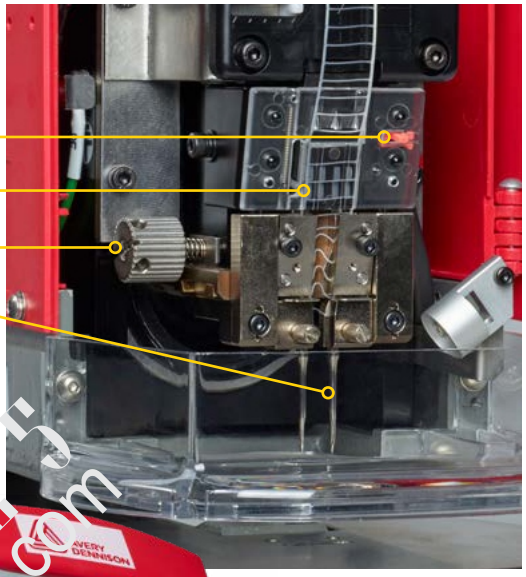
Part #15000-2 Narrow Base Plate, 3/8" opening

Plastic Staple® Replacement Needles

Part #	Item Description	Overall Length	Effective Length	Needle Diameter	Shortest Effective Fastener	Pkg Qty
15010-1	Fine Fabric Needle	1.45" (38mm)	0.55" (14.0mm)	.070" (1.8mm)	0.34" (8.5mm)	4/kit
15018-0	Fine Fabric Long Needle	1.45" (38mm)	0.73" (14.0mm)	.070" (1.8mm)	0.34" (8.5mm)	4/kit
15011-1	Ultra Fine Fabric Needle	1.45" (38mm)	0.55" (14.0mm)	.055" (1.4mm)	0.34" (8.5mm)	4/kit
15012-0	Ultra Fine Fabric - Heavy Duty Needle	1.45" (38mm)	0.55" (14.0mm)	.006" (1.8mm)	0.34" (8.5mm)	4/kit



Machine Features



Double-shot feature

No-adjust feed system reduces down time

Needle spacing knob

Adjustable needle spacing range: 6.5mm – 12.5mm

25,000 staple-spool capacity means less reloading

Ethernet port
RS232 port

Input AC
100-240 VAC
50/60 Hz, .50 A
power converter

On/off switch

Adjustable stopper

User interface for system programmability

Light provides excellent visibility

Safety guard

Fine needles for delicate fabrics

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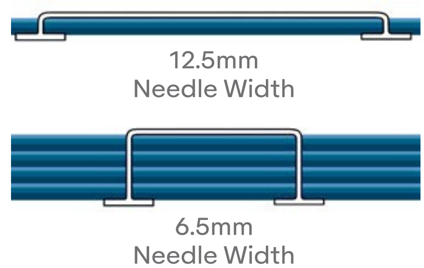
A Model of Innovation and Quality

The Avery Dennison Plastic Staple System was introduced in 2005 as a model of innovation and quality. With our recent enhancements, it remains a proven and effective fastening system. With this solution, you can:

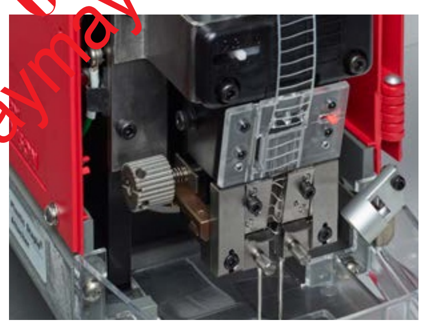
Increase machine output
with actuation speed programing. Choose the best speed for your application – as fast as .22 seconds/staple to maximize productivity. Or, choose a slower cycle, a 1 second/staple to penetrate maximum layers of material.

Optimize operator productivity
through cycle programmability with 1,2,3,4... 9,10 or “C” (continuous cycle) adjustments that allow users to preprogram cycle quantity setting. The duration between each cycle can also be adjusted.



Ensure a perfect staple size
for every application. Needle spacing can be adjusted between .25˝ (6.5mm) and .5˝ (12.5mm).

Make whiskering easier
and faster thanks to superior fastener strength and a double-shot feature that installs two fasteners in one cycle.



Cut reloading time in half
and incur less downtime and waste with the no-adjust feed system.

Record critical operation data
including up/down time and cycles with smart machine technology.

Elevating Brands, Acclerating Performance

To view the Plastic Staple ST9500 system in action ______________.

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Features and Benefits

The features that place the Plastic Staple ST9500 System securely at the top of the list for our customers are:

- Cycle programmability (1,2,3...10, or continuous)
- Variable actuation speed adjustment
- Variable needle spacing (Range 6.5mm – 12.5mm)
- Improved fastener strength
- Smart machine technology
- Power converter permits use in 120V or 220V, 50Hz/60Hz
- No clutch or solenoid
- No-adjust feed system
- 50% less power consumed when compared to machines with induction motors

The result is a rapid and steady workflow, with minimal downtime for reloading and fast cycle times. The ST9500 incorporates a high-quality motor and long-lasting needles, making service requirements minimal. Yet, when a repair or maintenance is required, Avery Dennison's global resources ensure expert support and high-quality parts are always on hand. As a result, busy production lines stay up and running, cost-per-use is lower, and productivity is maximized. In addition, the motor runs only when it is cycled, resulting in reduced electric power consumption.

Finally, there are some things the ST9500 doesn't have that are just as remarkable as the benefits it offers. It has no clutch and no solenoid. In standard stapling machines, these parts are the leading cause of downtime and result in the highest spare parts costs.

6/2024

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