■ SEALERS 101

How to Choose a Sealer **GUIDE**

What is a Heat Sealer?

A heat sealer is a machine used to seal plastic material using heat. There are many types of sealers and choosing the right sealer may be overwhelming without a few basic points. We discuss the four key characteristics of sealers to help you determine which best fits your application.

FUNCTION

There are two main types of sealers: (1) impulse heat and (2) direct heat.

Impulse sealers require no warm up time and seal by applying a pulse of energy to the sealing area, followed immediately by cooling. Impulse sealers only use power when the jaw is lowered. We recommend an impulse sealer for any thermoplastic material such as polyethylene (PE) or polypropylene (PP) which requires a lower seal temperature. Materials for impulse sealers: Polyethylene, Polyurethane, Polyvinylchloride, Pilofilm, Polyvinyl Alcohol, Saran, Nylon, bubble packs, padded mailers, foil, coated bags, Kel-F, Polyflex, Mylar, Tyvek, and other thermoplastic material. Impulse sealers are easy to use (no warm-up time), economical (electricity used only during sealing process), and safe (no component is always hot).

There are different types of impulse sealers based on type of material and usage (see our Guide – What Type of Sealer?)

Direct heat (constant heat) sealers maintain constant heat in both jaws. Direct heat sealers use power as long as the machine is turned on. As a result, direct heat sealers possess better heat penetration in order to seal thicker material. We recommend a direct heat sealer for materials such as coated aluminum foil, polycello films, gusset bags, coated Kraft paper, waxed paper, cellophane, mylar, coated PP, and other materials.
We also include other types of sealers used for more specific types of applications:

SIZE

The size of the sealer depends on the width of the material to be sealed. We usually recommend adding one inch to the width of material to be sealed for easier handling. Cutters on the sealer usually trim at slightly less than width of the sealer arm.

SPEED

1. Portable sealers are lightweight, handy and versatile. Sizes, however, are limited.
2. Hand sealers are the most simple and economical unit. The sealing bar is lowered manually. Sizes are available from 4" to 40" and approximately 6-20 packages can be sealed per minute.
3. Foot sealers provide a faster seal than hand sealers. The sealing bar is pedestal controlled leaving your hands free. Sizes are available from 12" to 35" and approximately 8-20 packages can be sealed per minute.
4. Automatic sealers provide even faster sealing than foot sealers and are ideal for high production jobs. Automatic sealers feature a pre-set time cycle to allow for a fully continuous automatic operation. Automatic sealers can also be used with a foot pedal for semi-automatic operation. Sizes are available from 12" to 47" and approximately 20-50 packages can be sealed per minute.
5. Continuous band sealers provide the fastest sealing operation with an unlimited length. Bags are simply fed into sealer while resting on a conveyor belt. Several models are available with features such as horizontal seal head, vertical seal head, tilting seal head, left or right feed, gas purging, and/or coding and imprinting.

WIDTH OF SEAL

Heating elements are made of nichrome (nickel-chromium) and determine the width of the seal. There are two types of heating elements: round or flat which are interchangeable in most sealers. The round wire is mainly used to cut and seal with no excess material above the seal. Depending on the width of the flat wire element, sealers are available in 2-3mm, 5mm, 8mm, or 10 mm. Some sealers are equipped with two heating elements for faster heat penetration making them ideal for sealing thicker materials.