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WHITEPAPER

Construction Methods and Materials for Wooden Outdoor Furniture

Outdoor furniture construction has come a long way over time, evolving through various different materials and construction techniques. This whitepaper specifically explores the methods and materials involved to maximize the beauty and durability of outdoor furniture constructed out of wood.

The first neighborhood backyard barbecue probably was focused around a fire pit, and the outdoor furniture seating consisted of smooth, flat stones arranged just out of reach of the flames. One of the earliest examples of folding outdoor seating was the camp chair used during the Civil War, made of tent canvas fabric stretched over pieces of wood. Our ancestors also used materials that are still common for outdoor furniture today such as wicker, rattan, and hardwoods like teak, due to their durability in outdoor weather conditions.

Today's outdoor furniture can be as comfortable as any indoor furniture. This furniture may rock, recline, swing, swivel or double as storage space and it may include cushions, padding or slings that provide the ultimate in comfort.

With the current trend of expanding living space by creating outdoor rooms rather than simple patios, outdoor furniture is not limited just to seating. It can include:

- Chairs
- Benches
- Tables
- Swings
- Outdoor bars and/or kitchens
- Stools
- Hammocks
- Planters

Regardless of whether you plan to purchase outdoor furniture or build it yourself, there are several things to keep in mind.

For instance, the material the furniture is made from. It either should be inherently weatherproof, or be treated to withstand the elements. Wood outdoor furniture, such as pieces constructed of teak, oak, eucalyptus, cedar, or even pine, blends with the concept of being within a natural outdoor environment with a casual and warm style. Wood furniture construction lends itself to outdoor applications due to its durability and relatively limited need for maintenance, particularly if the variety of wood used naturally resists rot, extreme heat, or high humidity such as teak. Typically, furniture constructed of hardwood is of better quality and durability vs. pieces constructed of softwood. Wood that has been "kiln dried" will resist warping and splitting.

Size, shape, color and functionality are also important to consider, and of course, no matter how beautiful or exotic the material, if the construction fasteners that hold it together are not of good quality, your outdoor furniture may not survive your first backyard barbecue. Threaded fasteners are best since they bite into the wood material and are therefore less susceptible to pulling out over time, while staples and glue are often used in lower quality construction. Dovetail or mortise and tenon joints will be sturdier, and screws should be stainless steel or otherwise coated for resistance to rust from harsh and humid weather conditions.

For more than 100 years of outdoor furniture construction, The BECK Fastener Group® has been the leader in new, innovative and versatile construction fastener manufacturing. The SCRAIL® family of fasteners offers products to meet most construction needs, including fasteners for building furniture that will be unsurpassed in quality and durability.

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SCRAIL® fasteners are essentially a performance-driven crossover combining a screw and a nail. These collated construction fasteners are known worldwide as The Faster Fastener® due to the speed and labor cost savings they can provide. SCRAIL® fasteners combine the speed of nail application with the dramatically increased holding power of screws.

SCRAIL® fasteners were developed specifically for use in most common collated coil or strip nailers, and are **twice** as fast as the typical collated screw and **eight** times faster than manually installed bulk screws. These versatile construction fasteners can be easily adjusted and quickly removed, if needed, with minimal damage to the surface material.

SCRAIL® construction fasteners are the perfect choice for all of your woodworking projects; large and small. Mini-SCRAIL® fasteners are especially well suited for the construction of durable and sturdy outdoor furniture.

Mini-SCRAIL® Fasteners:

- The newly-introduced mini-SCRAIL® collated fasteners feature the same advantages and innovations of all SCRAIL® fasteners, but are especially practical and useful for furniture manufacturing applications.
- **Mini-SCRAIL®** fasteners are specifically sized for use in manufacturing all types of furniture, both for outdoor and indoor use. Their smaller size makes them easy to handle and perfect for small projects and areas where space is limited.
- It is important that screws be set deeply and firmly on anything built with the intention of supporting weight, such as furniture and tables. By using Mini-SCRAIL® fasteners, you both increase load capacity, and create sturdier furniture.
- The available pan head design of the Mini-SCRAIL® fastener is also a decorative element, which can enhance the overall beauty of the finished furniture. This can be a valuable benefit where appearance is as important as function. These collated fasteners are also available in a countersunk head style.
- They can be utilized anywhere ordinary screws are used.
- These construction fasteners are available in lengths from 7/8" to 2" and feature a fine thread. They are offered in several finishes; including electro-galvanized, stainless SS304/SS316, and other finishes upon request. These include a wide variety of painted colors, or the new FasCoat™ finish developed specifically for applications where superior corrosion resistance is essential, such as outdoor furniture or decking. Collated fasteners treated with FasCoat™ finish have been tested by accredited laboratories in both Europe and the U.S. and found to withstand more than 2,000 hours of direct salt spray before the first signs of rust.
- Mini-SCRAIL® fasteners are available with phillips, pozi or star drives and either countersunk or pan heads. These fasteners come collated in a 15° plastic sheet, and -- like all SCRAIL® construction fasteners -- can be used in most common collated nailers.

Proper care **can** greatly extend the life and usefulness of all your wooden outdoor furniture. You can help to preserve the finish or paint on items by cleaning and/or waxing every two or three weeks. Between refinishing or repainting, be sure to touch up any cracks, chips or bare spots in the finish to keep moisture from seeping into the wood.

All spills, particularly carbonated beverages, should be wiped up as soon as possible. If left, they can eat away at the paint or finish of the furniture.

Plain mild soap and water is an inexpensive method for keeping your outdoor furniture in good shape. Many elements found outside (smoke, pollen, tree sap, etc.) may have a chemical reaction with some paints, finishes or the wood itself. Be sure to wash off all soap residues, and allow the furniture to dry completely to prevent mold and mildew.

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Consider applying a coat of automotive wax to your wooden outdoor furniture. Look for a wax that has a high level of UV protection, but is only a wax not a wax/cleaner combination. Like your skin, your outdoor furniture will last longer if protected from the harmful rays of the sun.

Mini-SCRAIL® fasteners are excellent for other construction projects, in addition to building furniture. A partial list of other applications for mini-SCRAIL® fasteners include:

- Millwork
- Windows
- Bed railings
- Arts and crafts
- Fencing
- Wooden lattice
- Crates for shipping or fruit
- Bar stools

SCRAIL® fasteners transform the ordinary into the extraordinary with a full lineup of versatile and innovative construction fasteners. Every construction project requires specific fasteners, and the SCRAIL® family of fasteners offers something for every project need:

- **Standard SCRAIL® Fasteners** are excellent for building crating or pallets and are perfect for use in manufactured housing, doors and windows. SCRAIL® fasteners also are an essential component in quality framing of all types.
- **BeckDeck® Fasteners** should be your top choice for decking, railing or fencing under certain densities. These double-threaded construction fasteners eliminate unsightly mushrooming or cratering of displaced material.
- **The InvisiDeck® Hidden SCRAIL® Fastener System** is a hidden deck fastening system that works with most composite and exotic hardwood deck boards. This system works well for either grooved or non-grooved applications.
- **SubLoc® SCRAIL® fasteners** are the best choice to eliminate squeaks and creaks when building steps or stairways. They should also be your choice for subflooring, providing similar squeak/creak reduction.
- **SteelThread SCRAIL® Fasteners** are perfect for light gauge steel construction. They minimize deflection and surface damage.
- **Hi-Load SCRAIL® Fasteners** were designed for use on larger jobs. The brand-new Hi-Load SCRAIL® system offers an innovative new feature in collated construction fasteners by combining the superior holding power of SCRAIL® fasteners with automation.
- **Jumbo Nails** are extremely versatile, making them the top choice for all types of timber frame construction projects. They feature longer lengths and thicker shanks, which provide increased shear value; better for use in construction with larger and heavier load-bearing timbers.
- **The Job Pack Nail Program** has recently been added to the Fasco America line of construction fasteners. This system provides the flexibility of purchasing high-quality fasteners in 800 to 1,000 counts. The Job Packs are available in an assortment of lengths and finishes, and include joist hanger nails, paper tape clipped head nails, plastic strip nails, wire coil nails and plastic sheet coil nails.

Fasco America is the exclusive distributor for BECK Fastener Group® and SCRAIL® in North America.

Additional information on Mini-SCRAIL® fasteners, and all the other SCRAIL® construction fasteners, can be found on the SCRAIL® [Facebook page](#), on [YouTube](#), or on the [Fasco America website](#).

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