Superior Metals and Finishing

Through our many years of experience and commitment to both quality and value, we have refined our selection of base metals and developed a superior finishing process to ensure our products endure the outdoor environment. Fence Professionals continue to rely on our quality hardware to help them produce and install better gate and door systems that both look great and function properly for years, helping them to satisfy the most discerning customers.

Superior Metals

Carbon Steel we use high-quality carbon steel for all of our steel-based products. The key advantages of carbon steel are its significant strength and that its economical to manufacture. The disadvantage is that when left in an untreated state, carbon steel rusts quickly. For this reason, we hot dip galvanize all of our carbon steel parts to prevent corrosion.

304 Stainless Steel we use grade 304 stainless steel (or 18/8 – contains 18% chromium and 8% nickel) for the majority of our stainless steel products. This is the most commonly used grade of stainless steel; it has excellent forming and welding characteristics and its rust resistant in most interior and exterior applications. It is less costly to manufacture parts from 304 stainless steel as opposed to 316 stainless steel, but it's not as corrosion resistant. Therefore, we primarily use 304 stainless steel in combination with the extra protection of our superior Powder Coat Finish.

316 Stainless Steel commonly referred to as "marine grade" stainless steel, 316 stainless steel (contains 16% chromium, 10% nickel and 2-3% molybdenum) is similar to 304 stainless steel but with the added benefit of molybdenum (a highly corrosion resistant metal). We also 'passivate' these parts, a process that dissolves any iron on the surface and produces a protective chromium oxide layer to further deter corrosion. The main advantage to using passivated 316 stainless steel is its unrelenting resistance to corrosion in extreme conditions.

Superior Finishing

CARBON STEEL BPPCG FINISHING PROCESS

1 HOT DIPPED GALVANIZING	2 CLEANING	3 E-COATING	4 POWDER COATING	5 QUALITY CONTROL
• Acid Wash	• Multi-Stage Wash	• Electrostatic Liquid Paint Application	• Electrostatic Powder Application	• Finish Inspection
• Molten Zinc Dip	• Multi-Stage Rinse	• Heat Cure	• Heat Cure	• Function Testing
• Cool	• Phosphate Conversion Coating			• Routine Adhesion Testing
				• Periodic Salt Spray Testing

STAINLESS STEEL FINISHING PROCESS

Salt Spray Testing Quality Control Images

SCH's Metal Finishing

Competitor's Metal Finishing

Superior Metals and Finishing

Hot Dipped Galvanizing the hot dip galvanizing process provides primary corrosion prevention for our steel hardware. During this process, the hardware is washed in acid and then dipped into a vat of molten, corrosion-resistant zinc. This process is not exact, and while all parts of our hardware are coated, the coating thickness may vary resulting in slight esthetic imperfections to the finish. That being said, hot dip galvanizing is an integral step in our superior metal finishing process as it creates a metallurgical bond between the steel and the zinc coating. Therefore, in the event of damage, rust is unable to migrate to other parts of the product.

E-Coating the multi-stage electro-coat (e-coating) process provides secondary corrosion prevention for our steel hardware and assists with adhesion of powder coating. Developed originally for the automotive industry, the e-coating process immerses the hardware in a bath of electrophoretic paint emulsion in which an electric charge is applied. The electric current attracts the paint particles to all surfaces and joints of the hardware, creating a consistent and uniform layer. The hardware is then heat-cured to finalize the e-coating process. E-coating is not UV stable and therefore requires powder coating to maximize product performance for outdoor use.

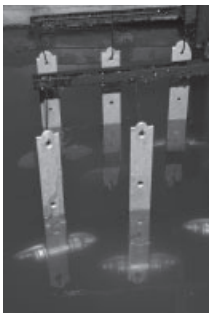
Powder Coating during the powder coating process, our hardware is hung on racks along a moving line to which an electrical charge is applied. The hardware is then sprayed with a mist of fine powder with an opposing electrical charge. This process allows for a high degree of control, therefore ensuring the powder coat is applied at an optimal, even thickness with no runs or sags. The hardware is then heat-cured to complete the process. SCH uses high-quality polyester powder coating that is designed specifically for outdoor use with high UV resistance.

BPPCG is an acronym for Black Polyester Powder Coat over Galvanize. In addition to our Hot Dipped Galvanize Finish and Black / White Powder Coat Finishes, we also offer a wide range of our hardware with a BPPCG Finish. Our carbon steel products are hot dip galvanized, cleaned, e-coated and then powder coated as part of the BPPCG process. In the event of surface damage, this multi-layered protective coating minimizes the potential spread of corrosion. The Snug Cottage Hardware BPPCG finishing process is far superior to products coated over raw carbon steel and allows us to offer a wide range of larger hardware options, which are rust free, without the extra cost of producing them from stainless steel.

Quality Control salt spray testing is the Industry Standard typically utilized to determine surface coating stability. SCH routinely tests hardware samples to ensure the finishes applied adhere to our high-standard requirements. Following salt spray testing, each product is examined to ensure the coating doesn't flake and rust formed within the intentional scratches is confined and does not migrate. We are committed to quality and will accept nothing less.

Metal Finishing Process Images


Racked Parts


Cleaning


E-Coating


Powder Coating