

13-Stage Complete Coverage Powder Coat Process

featuring **Gema** Technology

We pursue perfection and to be the leader of innovation. We have achieved this by dedication, diligence, and industriousness. Our 13-stage process goes beyond others in the industry, incorporating meticulous stages of preparation to achieve the highest quality finish.

Stage 1 >> Blast

Steel Grit Air Blast - Through this process steel is brought to Near White blast clean.

Stage 2 >> Blow Off & Inspection

Manual Blow Off & Inspection - Removal of excess grit and quality inspection verifying Near White blast level.

Stage 3 >> 5-Stage Wash

Operation cleans the steel, provides corrosion preventative, prepares steel for ideal adhesion.

- **1.** Heated Alkaline cleaner, 140º temperature, removes impinged organic materials, oils, & lagging grit.
- 2. Initial reverse osmosis (RO) rinse.
- 3. Secondary reverse osmosis (RO) rinse.
- **4.** Zirconium conversion coating, a rust/corrosion preventative chemical coating aids in primer adhesion to trailer.
- 5. Final reverse osmosis (RO) rinse.

All water utilized through the 5-stage wash is filtered and cleaned through reverse osmosis (RO) to ensure consistency and quality.

Stage 4 >> Force Dry

Forced Air Heated Dry-off tunnel, trailer travel through the gas fired 450° high velocity tunnel, eliminating flash rust opportunity.

Stage 5 >> Cool Down

Cool Down Tunnel, using ambient air the trailer is cooled to 110º or less.

Stage 6 >> Inspection

Cleaning Inspection, inspectors verify all material preparation meet/exceeds quality standards.

Stage 7 >> Zinc Enriched Epoxy Primer

Primer electrostatically applied to all points of the trailer achieving complete, 100% surface coverage.

Stage 8 >> Gel Oven

The primed trailer enters the gel oven providing a partial cure.

Stage 9 >> Cool Down

Cool Down Tunnel, using ambient air the trailer is cooled to 110º or less.

Stage 10 >> Top Coat Ultra-durable TGIC Polyester

Top Coat is electrostatically applied to all points of the trailer achieving complete, 100% surface coverage.

Stage 11 >> 3-Stage Full Cure Oven

The top coat is cured as the trailer passes through the **3-zone** oven.

- **Zone 1** low air velocity, high heat.
- Zone 2 moderate air velocity, high heat.
- Zone 3 high air velocity, high heat.

The zonal process ensures complete curing of primer and top-coat. Resulting in full inter-coat adhesion and a full coating cure.

Stage 12 >> Cool Down

Cool Down Tunnel, using ambient air the trailer is cooled to 110º or less.

Stage 13 >> Final Inspection

Final Inspection, quality inspectors ensure the finish meet/exceeds quality standards.

Felling Trailers' state-of-the-art powder coat facility incorporates industry leading technologies to ensure a durable, lasting, premium finish. We have always believed the key to any finish is in the preparation. Each stage of a process is essential to produce a pristine finish. We have partnered with industry leading powder coat solutions provider Gema to configure a system that stands above industry and competitors standards. Since 1974, three words have defined the Felling brand, *Quality, Craftsmanship, Pride.*

