



Ji'nan ShengTai Painting Equipment Co.,Ltd.

Address: East of the intersection of Dongwaihuan Road and Wenhua Road in Wenden, Diaozhen Street, Zhangqiu District, Jinan City, Shandong Province

Email: sales@stp powdercoating.com WhatsApp: +8615854139190

| Process steps | Main purpose | Operation method and key parameters | Equipment size reference |
|--------------------------------|---|--|--|
| 1. High-pressure water rinsing | Initially remove impurities such as oil, iron filings, and welding slag from the surface of the workpiece | High-pressure spray guns or spray devices are used, water pressure: 0.15–0.3 MPa | Nozzle diameter: 1.5–3 mm; spray pipe spacing: 0.5–1 m (adjusted by workpiece size) |
| 2. Pre-degreasing | Remove most of the oil and grease to prepare for subsequent degreasing | Partial spraying and immersion or full spraying; temperature: 50–60°C; time: 1–3 minutes | Pre-degreasing tank: length 3–5 m, width 1–2 m, depth 0.5–1 m (determined by workpiece length) |
| 3. Defatting | Thoroughly remove grease, alkaline degreasing agents are often used | Immersion or spray; temperature: 55–65°C; time: 3–5 minutes | Degreasing tank: length 3–6 m, width 1–2 m, depth 0.5–1 m |



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|--------------------------------------|--|--|--|
| 4. Wash with water (1–2 times) | Rinse off any residual liquid after degreasing to prevent contamination of subsequent processes | Overflow water washing or spraying; temperature: room temperature; time: 0.5–2 minutes | Washing tank: length 2–4 m, width 1–1.5 m, depth 0.5–1 m; overflow outlet height: 1/3–1/2 of tank height |
| 5. Table adjustment | Adjust the microstructure of the workpiece surface to promote uniform formation of the phosphating film | Soaking; pH: 7.5–10.0; time: 0.5–2 minutes | Gauge groove: length 2–3 m, width 1–1.5 m, depth 0.5–1 m |
| 6. Phosphating | Form a phosphate conversion film on the workpiece surface, improve coating adhesion and corrosion resistance | Immersion or spray; temperature: 35–55°C; time: 3–10 minutes | Phosphating tank: length 3–5 m, width 1–2 m, depth 0.5–1 m; spray nozzle spacing: 0.5–1 m |
| 7. Wash with water after phosphating | Remove residual phosphating solution to prevent corrosion | Overflow water washing or spraying; temperature: room temperature; time: 0.5 | Washing tank: length 2–4 m, width 1–1.5 m, depth 0.5–1 m (same as the preceding washing tank) |



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| | | | |
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| | | -2 minutes | |
| 8. Drying | Remove moisture from the workpiece surface to prepare it for painting | Baking or air drying; baking temperature: 60–80°C; baking time: 10–30 minutes | Drying chamber: length 5–10 m, width 2–3 m, height 2–3 m (determined by workpiece length) |

ShengTai Painting Equipment: The pre-treatment stage of the painting line refers to the complete cleaning of the workpiece surface from contaminants such as oxidation, rust, oil, dust, and other impurities. This ensures that the powder coating or paint can firmly adhere and bond with the metal surface, thereby enhancing the quality of the workpiece and extending its service life.

As an essential step in the pre-treatment process of the painting line, it involves the thorough removal of various contaminants (such as lubricants, emulsifiers, grease, sweat stains, etc.) and dust from the workpiece surface, ensuring a clean and prepared surface for coating. This process not only guarantees superior coating adhesion but also serves as a critical part of our advanced liquid coating equipment and anti corrosion equipment, ensuring long-lasting protection and durability for your products.

Please provide detailed information so that we can provide you with a more accurate solution:



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1. What are the Maximum and Minimum dimensions of your workpieces (L × W × H)?

2. What is the maximum weight of each workpiece? If available, please also provide product photos.

3. How many workpieces do you plan to coat per day (based on 8 or 16 working hours) or per month?

4. Which heating source do you prefer, such as electric power, diesel, fuel oil, or natural gas?

5. What are the dimensions of your workshop (L × W × H)? If possible, could you share a layout or drawing of the facility?

6. Prior to coating, do you require spray pre-treatment to prepare and clean the product surface?

7. What voltage and frequency standards are used in your country?

Please also share your WhatsApp or another instant messaging contact so we can communicate more efficiently.

Website: <https://www.stpowdercoating.com>

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WhatsApp: +86-15854139190;

WeChat/Telegram: +86-15098917702

Email: sales@stp powdercoating.com