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Issue A

Storage guide for Rapidrop Steel Pipes

The key to storing steel pipes is to protect the surface galvanized layer (to prevent rust), avoid physical damage (deformation, scratches) and ensure storage safety. Specific precautions are as follows:

1. Avoiding Corrosion Of The Galvanised Layer

1.1. Dry and ventilated

The storage area should be dry and well-ventilated, avoiding humidity (relative humidity recommended: ≤ 60%) to prevent oxidation and rusting of the zinc layer due to condensation or moisture.

Keep away from low-lying areas with accumulated water. If the floor is damp, lay a moisture-proof layer (such as plastic wrap or wooden boards) on the floor.

Closed warehouses should be ventilated regularly to reduce moisture and corrosive gases (such as sulfides and acid and alkali mists found in industrial areas) in the air.

1.2. Keep away from corrosive substances

It is strictly forbidden to store it in the same area with acids, alkalis, salt substances (such as fertilizers, pesticides, battery fluids) and corrosive gases (such as chlorine and ammonia) to avoid chemical corrosion of the zinc layer (zinc easily reacts with acids and alkalis to form soluble salts, causing the coating to fail).

1.3. Avoid exposure to the sun and rain

Storage in a closed warehouse is preferred. If outdoor storage is necessary, the pipes must be covered with waterproof canvas (or plastic film) and the bottom must be elevated (≥30cm) to prevent rainwater and ground moisture.

Also, avoid direct sunlight that can cause sudden temperature changes (alternating hot and cold temperatures can easily generate condensation).

2. Prevent Physical Damage and Deformation

2.1. Off the ground

Use wooden or rubber mats and steel supports to raise the pipes above the ground (≥20 cm above the ground) to avoid direct contact with the ground (which may contain moisture and impurities, which can wear away the zinc coating). The mats should be flat and have a large contact area with the pipe to prevent localized deformation due to pressure.

2.2. Classification and stacking

Steel pipes of different specifications (diameter, length) should be stacked separately to avoid uneven stress or deformation of smaller pipes due to mixing. When stacking, clearly mark the pipes (specification, quantity) for easy access.

2.3. Control stack height

2.3.1. The stacking height needs to be adjusted according to the pipe diameter and wall thickness. The stacking height of thin-walled pipes (≤3mm) should be ≤1.5m to avoid bending of the bottom pipes due to pressure.

Thick-walled tubes (>3mm) can be appropriately increased in height, but the overall stability must be ensured to prevent tipping.

2.3.2. To prevent friction and scratches the pipes need to be separated by soft materials (such as rubber pads, canvas) to avoid collision and friction during transportation or stacking, which may cause damage to the zinc layer (damaged areas are prone to rust and spread).

3. Long Term Storage

3.1. Regular inspections

3.1.1 Check once a week, focusing on whether the zinc layer is damaged, bulged, or rusted (if local rust is found, it needs to be sanded and then painted with a repair paint with a zinc content of ≥95%).

3.1.2 Check whether the stacking is loose or tilted, and adjust and reinforce it in time.

3.1.3 Check whether the ambient humidity exceeds the standard and use a dehumidifier if necessary.

3.2. Avoid mixing with other metals

Avoid direct contact with ungalvanized steel, copper, aluminum, and other metals to prevent electrochemical corrosion (zinc acts as an anode when in contact with other metals and is the preferred anode for corrosion).

These measures effectively protect the integrity of the steel pipe's coating, extend its storage life, and prevent rust or deformation before use.

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