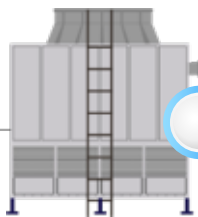
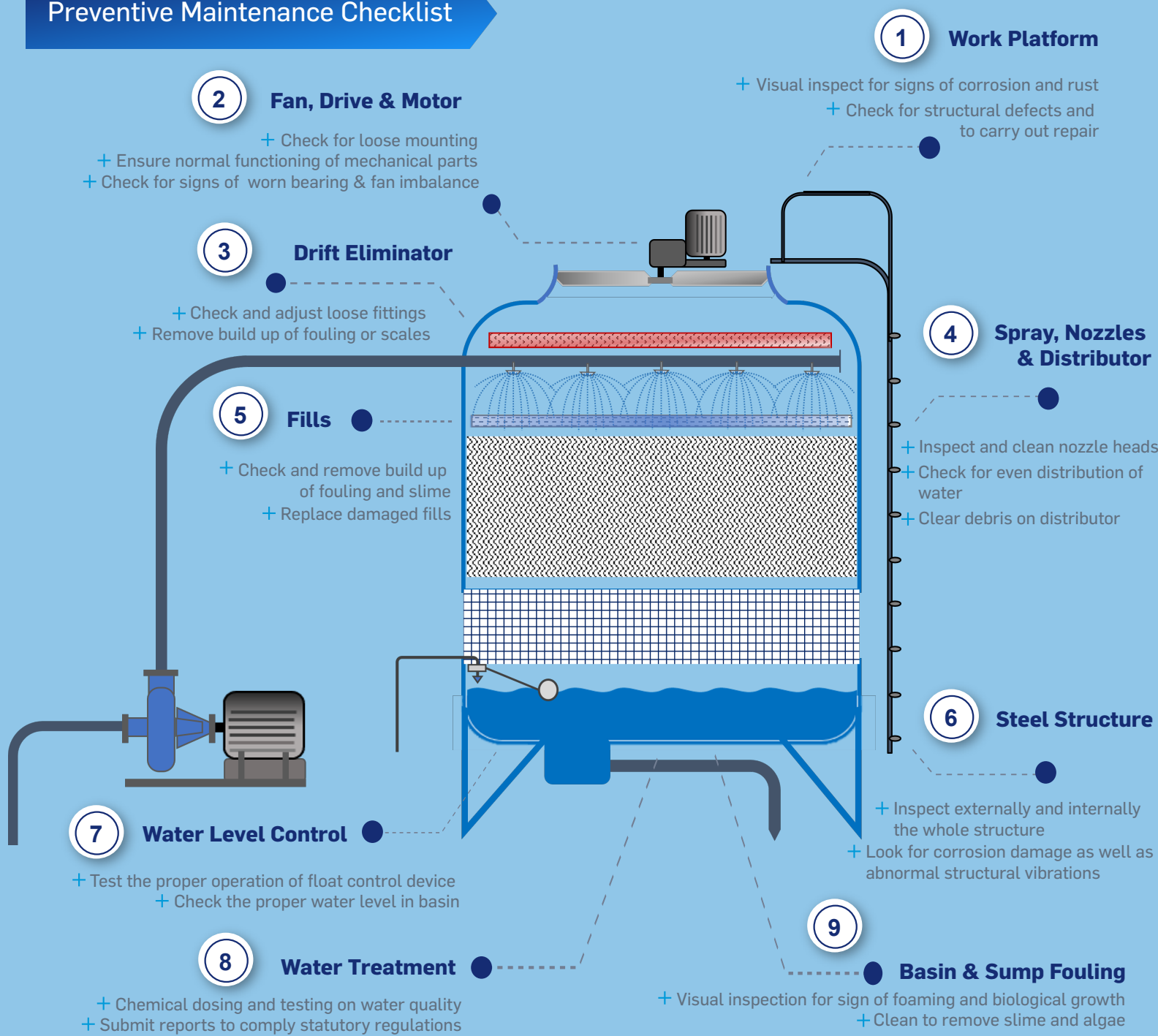


Preventive Maintenance Checklist



Common Problems of Cooling Tower

1 Biological Contamination	<ul style="list-style-type: none"> • Warmth & humidity → Bacteria & fungi • Slime in tower, foaming on water stream, green algae on basin • Hazardous to human health • Hamper thermal efficiency of cooling tower
2 Fouling & Scaling	<ul style="list-style-type: none"> • Debris & biofilm cause restriction to flow & prevent heat transfer • Appear in tower fills, sprinkler nozzles, water pipes & heat exchanger • Minerals found in water form scales in pipework & heat exchanger tubes • Impair thermal efficiency of chiller → Energy bill goes up
3 Corrosion	<ul style="list-style-type: none"> • Contaminants in air dissolve in circulating water → Pipes corrosion • Moist & humid discharge air from tower mixes with air pollutants → Corrosion attacks tower structure → Corrosion attacks nearby installations
4 Basin Level Control	<ul style="list-style-type: none"> • Defective components / poor operation maintenance → Overflow → Nuisance and damage to nearby environment → Lowflow → Air entering pipework, airlock issues
5 Tower Plume	<ul style="list-style-type: none"> • Air with high moisture exit from cooling tower mixes with cooler air at tower top → Condenses to water vapor forming white smoke → Nuisance to environment, create unnecessary nearby people concerns
6 Noise & Vibrations	<ul style="list-style-type: none"> • Early signs of mechanical defects • Poor drive alignment • Fan imbalance • Worn bearing • Excessive loading • Gear tooth fracture

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