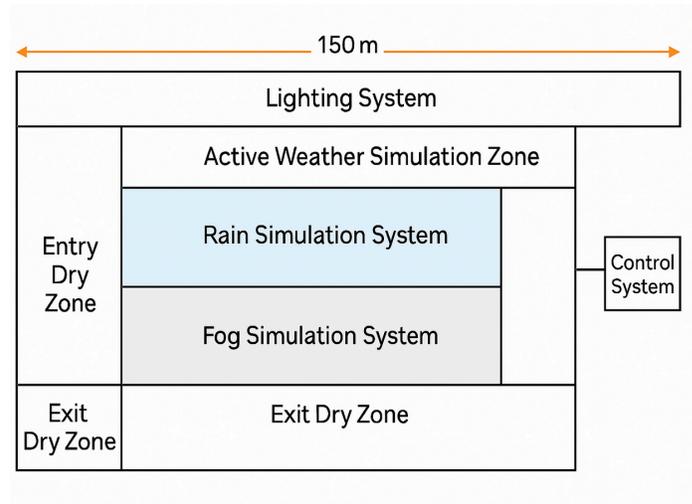
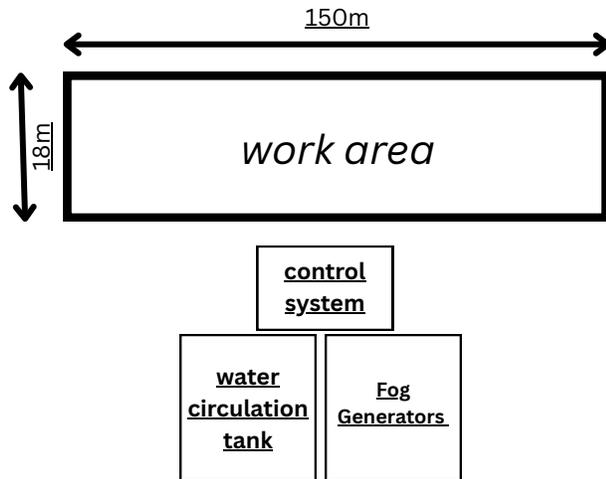


Order Code - 25268599.1 & 25268599.2



Tesca presents an advanced Weather Simulation and Testing Facility designed to replicate real-world environmental conditions with precision and consistency. Spanning 150 meters in length, this world-class infrastructure enables controlled simulation of rain, fog, and lighting for research, validation, and testing of vehicles, sensors, and electronic systems. It is particularly suited for institutes, R&D labs, and industries involved in developing and testing technologies under extreme conditions.

At the core of the facility lies a 100-meter-long active weather zone, flanked by dry entry and exit sections, ensuring seamless movement and transition of test subjects. Rainfall intensity can be varied up to 100 mm/hr, simulating monsoon-like conditions with uniform distribution. The fog system generates dense fog with visibility adjustable between 10 to 200 meters, ideal for calibrating automotive vision and sensor systems. Lighting conditions simulate day, night, and transitional phases with lux levels from 0 to 2000, using high-efficiency LED systems.

The facility also incorporates RF shielding and structural materials to reduce signal reflection and electromagnetic interference, supporting sensitive radar and communication-based tests. The entire system is designed for sustainability, including water recirculation and eco-friendly fog generation. With precise environmental control and robust structural design, the facility sets a new benchmark for weather-based testing environments.

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

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Order Code - 452454

Technical Specifications

1. Overall Facility

- **Total Length:** 150 meters
- **Total Width:** 18 meters
- **Active Zone:** 100 meters (centered)
- **Dry Zones:** 25 meters at entry & exit

2. Rain Simulation System

- **Coverage Area:** 100m × 14m
- **Rain Intensity:** Up to 100 mm/hr, sustained for 15 mins
- **Droplet Size:** 2.5–3.0 mm
- **Uniformity:** ±10% across zone
- **Water Source:** Filtered water with recirculation
- **Control:** Variable intensity (0–100 mm/hr)
- **Activation Time:** ≤60 seconds

3. Fog Simulation System

- **Coverage Area:** 100m × 14m
- **Fog Height:** Up to 3 meters
- **Visibility Control:** Adjustable 10–200 meters
- **Particle Size:** 1–10 microns
- **Fog Type:** Water-based, glycol-free
- **Distribution:** Uniform, stable for ≥15 minutes
- **Control:** Variable density control

4. Lighting System

- **Coverage:** Full 150 meters
- **Light Source:** LED (5500K)
- **Max Intensity:** 2000 lux at road level
- **Control Range:** 0–2000 lux
- **Uniformity:** ±15%
- **Modes:**
 - **Night:** 0–50 lux
 - **Dawn/Dusk:** 500–1000 lux
 - **Overcast:** 1000–2000 lux
- **Dimming:** Smooth control with memory presets

5. Structural & RF Shielding

- **Wall Material:** Non-radar-reflective
- **RAM Foam Coverage:** Up to 3 meters on metal frames
- **Radar Absorption:** ≥ -20 dB (50–100 GHz)
- **Construction:** Non-metallic preferred
- **RF Shielding:** Minimizes EMI for test accuracy

Note: Specifications are subject to change.

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