

Three-in-One
Nozzle



X-Axis Misting System

Consistent Curing in High Temperatures

The X-Axis Misting System ensures effective curing in demanding conditions by applying a fine, even mist directly onto freshly printed layers. By maintaining proper moisture levels, it prevents premature hardening and reduces the risk of cracking from excessive heat or direct sunlight. The mist also keeps the nozzle flaps wet during printing, supporting smoother extrusion and a more uniform wall finish once cured.

Water is distributed through integrated pipes and hoses mounted along the X-axis, ensuring full coverage within the printable area. Supplied as a fully assembled 6X configuration, the system can be easily adjusted on-site to match any printer size and is compatible with BOD2, BOD3, and BODXL printers, with or without the Advanced Hose Management System (AHMS).



Stronger Structures

The system helps maintain a consistent moisture environment that supports proper hydration of cement. By reducing evaporation, it minimizes the risk of shrinkage cracks caused by excessive heat or direct sunlight, resulting in a stronger, more durable, and uniform final structure.



Smooth Wall Finish

The system improves the bond between printed layers, resulting in stronger walls with a smoother, more uniform appearance. At the same time, the mist keeps the nozzle flaps wet during printing, which supports consistent print quality and further improves the wall finish once dried.



Adaptable Nozzle Configuration

The system includes six nozzle types with varying mist volumes and intensities. Larger nozzles are suited for hot, dry climates, while smaller ones provide balanced coverage in moderate environments. This flexibility enables consistent curing performance across a wide range of site conditions.



Easy Installation

Installation is straightforward. Along the X-axis, misting pipes attach directly to the AHMS or to supplied brackets. The Y-axis hose routes through the C-chain or E-chain, and the Z-axis hose is secured to the concrete hose or placed inside the chain depending on printer setup. This design allows for quick setup, compatibility across all printer models, and minimal on-site effort.

Technical Specifications

Nozzle Material	Precision Moulded Thermoplastic
Nozzle Type	3 x Flat Fan nozzles, 3 x Low Drift nozzles
Flat Fan Pink Nozzle	Volume: 0.24–0.39 L/min 0.06–0.10 GPM Intensity: 12–77 L/ha 1.1–4.9 GPA
Flat Fan Orange Nozzle	Volume: 0.33–0.52 L/min 0.09–0.14 GPM Intensity: 16–103 L/ha 1.4–6.5 GPA
Flat Fan and Low Drift Green Nozzle	Volume: 0.49–0.77 L/min 0.13–0.20 GPM Intensity: 24–155 L/ha 2.1–9.8 GPA
Low Drift Yellow Nozzle	Volume: 0.65–1.03 L/min 0.17–0.27 GPM Intensity: 31–207 L/ha 2.9–13.1 GPA
Low Drift Blue Nozzle	Volume: 0.98–1.55 L/min 0.26–0.40 GPM Intensity: 47–310 L/ha 4.3–19.6 GPA
Recommended Spraying Height	35 to 70 cm 13.8 in to 27.6 in
Nozzle Operational Pressure	1.5 to 5 bar 20 to 70 psi
Recommended Water Supply Connection	Standard Water Supply (2–5 bar 29.0–72.5 psi)

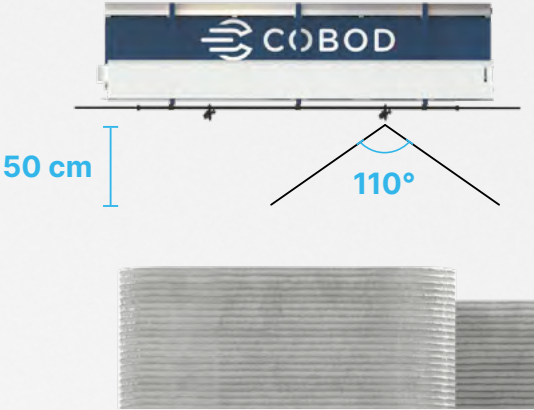
For more information or further details about the X-Axis Misting System, please contact your regional sales manager.



Flexible Nozzle Design

The misting system features a three-in-one nozzle concept that gives operators full control over spray performance in varying site and curing conditions. Each module includes two triple nozzles that can be rotated to select the desired spray type or exchanged to fine-tune mist volume and intensity. This design simplifies adaptation to temperature, humidity, and material curing needs while reducing downtime from nozzle changes.

The system connects to a standard on-site water outlet, with manual activation providing straightforward, reliable operation in any environment.



Uniform Spray Control

Each nozzle sprays directly downward at a fixed 110° angle to ensure consistent and even coverage across the curing surface. The recommended operating height of 50 cm balances droplet distribution and mist efficiency, while nozzle type determines output volume and spray density.

Flat Fan nozzles provide uniform and wide coverage under ideal conditions, whereas Low Drift nozzles maintain control when spraying must continue in less favorable environments. Together, they enable optimal curing performance with minimal water waste and high operational precision.