

Technical Specifications

Compatibility	COBOD HT printheads with 50 × 40 mm and 80 × 30 mm nozzles, including Extension Nozzles and Laser Nozzles
Function	Active rotational alignment of the nozzle with the toolpath during printing
Rotation Range	360°
Control Interface	Integrated with COBOD Slice
Drive System	Motor-driven rotation, synchronized with software control
Maintenance	Requires periodic belt alignment and tension checks, verification of motor function, and inspection of cable integrity. After printing, the system should be checked for concrete buildup that may obstruct rotation.

Tangential Control is available as additional equipment for COBOD printers. For more information, please contact your regional sales representative.

Aligns Nozzle Rotation With the Toolath for Accurate Prints

Tangential Control

Tangential Control enables smooth and accurate layer placement by rotating the nozzle in alignment with the toolpath during printing. This allows the printhead to follow curves and directional changes without deviating from the intended path.

The system combines mechanical rotation with real-time software control, synchronizing nozzle orientation with printer movement. As the printer changes direction, the nozzle continuously adjusts its rotation to remain aligned with the toolpath.

This is especially beneficial when printing curves or corners, where fixed nozzle orientation can reduce path accuracy. By maintaining alignment throughout the movement, Tangential Control ensures smoother transitions and more consistent geometry in the printed structure.

