

Technical Data Sheet: HyperRoll

1. Physical Specifications & Materials

- **Product Weight:** 2.66 kg
- **Gross Weight (Full Box):** 3.04 kg
- **Tare Weight (Empty Box):** 0.38 kg
- **Payload:** 15 kg
- **Main Structure Alloys:** Aerospace-grade materials including aluminium alloys EN AW-6026 [AlMgSiBi], EN AW-6082 [AlSi1MgMn], and EN AW-7075 [AlZn5.5MgCu – Ergal].
- **Surface Finish:** Ceramic shot-peened surface finish to improve the uniformity of the anodized layer and increase fatigue resistance.
- **Treatment:** Black anodizing treatment that generates a compact oxide layer with a thickness between 20–50 µm.

2. Mechanical Components & Sliding System

- **Wheels:** High-density polyurethane (PU) wheels with a 90 Shore A hardness and a radiused profile to reduce friction.
- **Bearings:** Double shielded ABEC-7 ball bearings, resistant to dust and external agents, ensuring constant and silent rotation.
- **Wheel Hub:** Anodized aluminium with an AISI 304 stainless-steel pin and anti-wear bushing.
- **Mounting & Sliding System:** 120 mm NATO sliding rail for quick positioning and locking.
- **Compatibility:** Universal compatibility with professional cages through standard 1/4" attachments.
- **Angular Adjustment System:** Each wheel is rotatable around a vertical axis with an engraved scale and locking knob for independent adjustment.
- **Calibration:** Integrated bubble level for verifying horizontal alignment during setup.

3. Modular Configurations

The HyperRoll apparatus is composed of one or more modular handles connected to an external body:

- **Single Handle:** Mounted at the rear of a professional cage to achieve irregular or dynamic movements, usable with or without the telescopic handle.
- **Dual Handle:** Mounted on both sides of the cage for parallel, diagonal, or curved movements.
- **Triple Handle:** Arranged in a triangular configuration to ensure maximum stability, ideal for controlled rotations or variable-radius curves.
- **Telescopic Handle:** Extendable grip designed for long-distance movements or wide-range shots, maintaining structural rigidity and angular precision.

4. Operating Modes

HyperRoll features 10 defined operating modes:

- **Mode 1 (LOW ROLL):** Enables ground-level shooting by exploiting the system's low height and NATO rail adjustment.
- **Mode 2 (ROLL OVER):** Allows smooth motion above objects using the longitudinal adjustment of the handle on the NATO rail.
- **Mode 3 (ACTION ROLL):** Designed for dynamic scenes, utilizing the dual-handle and telescopic combination to enhance control and responsiveness.
- **Mode 4 (FREESTYLE ROLL):** Takes advantage of the ergonomic dual-handle configuration to enable irregular trajectories and creative motion.
- **Mode 5 (TABLETOP ROLL):** Enables full 360° rotations around the subject by setting different steering angles on each wheel in a triple-handle configuration.
- **Mode 6 (DUTCH ROLL):** Supports inclined or diagonal shots using offset NATO rail adjustments on the two side handles.
- **Mode 7 (TOTAL GRIP ROLL):** The combination of three handles and a telescopic grip increases precision and reach.
- **Mode 8 (POV ROLL):** Allows direct attachment of an object or accessory to the camera for a unique first-person viewpoint.
- **Mode 9 (PETS ROLL):** Single-handle configuration with telescopic extension for ground-level shooting of fast-moving subjects.
- **Mode 10 (VERTICAL ROLL):** Enables all operational configurations to be replicated in a vertical (portrait) setup.