

# DECK009 baseline ring

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## SPEC-00-STR-DECKS-DECK009-0001-baseline-ring-EN-DE-v0.1.0-DRAFT

### The Engineering of DECK009 - Baseline Ring

**Document status:** Draft (EVOL-00 baseline) **Date:** 2025-08-25 **Applies to:** Earth ONE class sphere station (Ø 127 m)

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### 1. Abstract / Zusammenfassung (EN/DE)

**EN:** DECK 009 is a baseline pressurized ring providing volume for future systems. It spans  $r_i = 38.5$  m to  $r_o = 42.0$  m (gross) with 0.5 m structural thickness (net  $r_o = 41.5$  m).

**DE:** DECK 009 ist ein Baseline-Ring für zukünftige Systeme. Er erstreckt sich von  $r_i = 38.5$  m bis  $r_o = 42.0$  m (brutto) mit 0,5 m Strukturstärke (netto  $r_o = 41.5$  m).

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### 2. Baseline Geometry & Environment (EVOL-00)

- **Radial band:** inner radius **38.5 m**, outer radius **42.0 m**, net outer radius **41.5 m**, net deck height **3.0 m** (gross 3.5 m).
  - **Circumference:** ~**241.9 m** (inner) to ~**260.8 m** (outer net).
  - **Gravity:** ~**10.71 m/s<sup>2</sup>** at net outer radius (EVOL-00 spin law).
  - **Deck role:** TBD.
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### 3. Open Parameters (TBD/TBC)

- Detailed functional layout & interfaces.
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### 4. Drawing & Data References

- DECK geometry baseline table.
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