

DECK002 baseline ring

2025-08-25

SPEC-00-STR-DECKS-DECK002-0001-baseline-ring-EN-DE-v0.1.0-DRAFT

The Engineering of DECK002 - Baseline Ring

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

1. Abstract / Zusammenfassung (EN/DE)

EN: DECK 002 is a baseline pressurized ring providing volume for future systems. It spans $r_i = 14.0$ m to $r_o = 17.5$ m (gross) with 0.5 m structural thickness (net $r_o = 17.0$ m).

DE: DECK 002 ist ein Baseline-Ring für zukünftige Systeme. Er erstreckt sich von $r_i = 14.0$ m bis $r_o = 17.5$ m (brutto) mit 0,5 m Strukturstärke (netto $r_o = 17.0$ m).

2. Baseline Geometry & Environment (EVOL-00)

- **Radial band:** inner radius **14.0 m**, outer radius **17.5 m**, net outer radius **17.0 m**, net deck height **3.0 m** (gross 3.5 m).
 - **Circumference:** ~**88.0 m** (inner) to ~**106.8 m** (outer net).
 - **Gravity:** ~**4.39 m/s²** at net outer radius (EVOL-00 spin law).
 - **Deck role:** TBD.
-

3. Open Parameters (TBD/TBC)

- Detailed functional layout & interfaces.
-

4. Drawing & Data References

- DECK geometry baseline table.
-