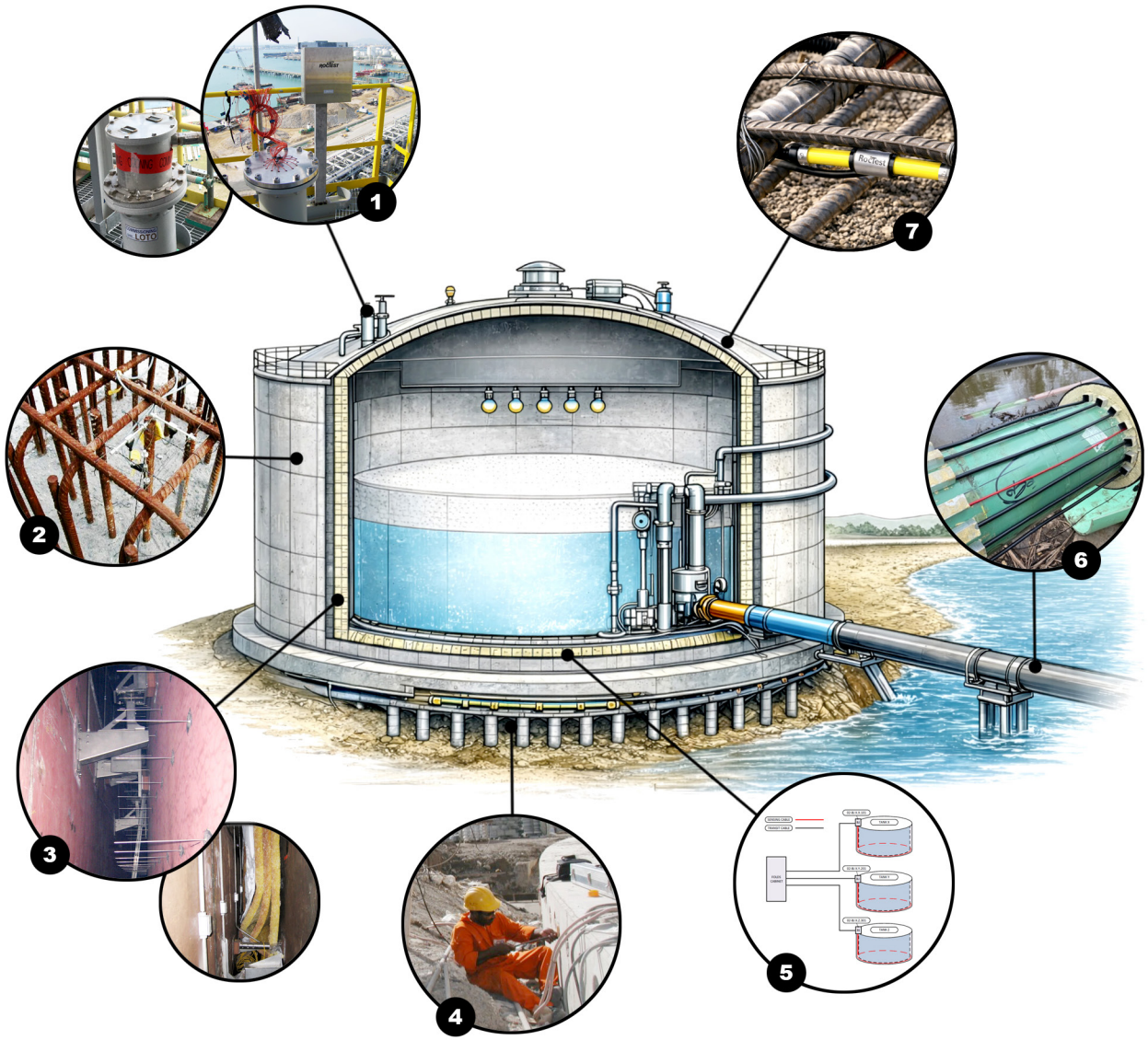

1. **Counter-flange and junction box** where fiber-optic cables exit the tank and all sensing cables are spliced into a multi-fiber trunk cable.
2. **Vibrating-wire strain gauges** embedded in the concrete wall to monitor concrete strain during curing and throughout the service life of the structure.
3. **Structural movement monitoring system** installed in the annular space between the outer concrete wall and inner steel liner measures displacement from thermal and operational loading.
4. **Inclinometer system** (manual or automated) to monitor foundation slab deflection and settlement during tank operation.
5. **Perimeter leak-detection system** using distributed fiber-optic sensing cables installed around the tank at multiple elevations.
6. **Pipeline leak-detection system** using distributed fiber-optic sensing cables installed along the LNG transfer pipeline.
7. **Vibrating-wire strain gauges** embedded in the concrete dome to monitor concrete strain during curing and over the lifetime of the structure.