Small bore tubing connection failure

Description of Process:
A 12x2mm (wall thickness) 6 Mo tubing had been used in combination with Parker Alok fittings, which is not a recommended combination. The fitting had not been correctly assembled and subsequently, the ferrule had not gripped the tubing sufficiently resulting in the tubing/ferrule connection parting when subjected to pressure.

Description of Incident:
When bringing a new well online a section of instrument tubing parted from an instrument block and bleed valve on a pressure transmitter allowing an uncontrolled release of >200kg of hydrocarbon gas at 200barg. The release did not ignite.

The platform’s fixed fire and gas detection system initiated the general platform alarm, shutdown, blowdown and deluge in the well-bay area.

Good Practice Guidance:
1. Check tubing and fitting combinations against manufacturers recommendations.
2. Do not assume original facility design aligns with current good practice and/or manufacturers recommendations.
3. Operators should assure themselves that contractor personnel are assessed competent to a recognised standard which is aligned with their own competency requirements. This should include onshore staff working on design.

4. Ensure all changes from original project design / modification are backed up by appropriate process, for example site / engineering query, management of change.

Useful links:

- [Joined-up Thinking pack – change management film](#)
- [Mechanical Joint Integrity Competence Guidance](#)
- [Competence Management Framework Guidance](#)
- [Joined-up Thinking pack – Competence assurance](#)
- [Joined-up Thinking pack - Competence](#)