

## **CPI™ & A-LOK® Tube Fittings** **ANSI/ASME B31.1 & B31.3 Compliance**

### **Purpose**

To outline how Parker CPI™ and A-LOK® Tube Fittings comply with the pressure design requirements of ANSI/ASME B31.1 and B31.3



### **ANSI/ASME B31.1 Power Piping**

Section 115 is the applicable section for instrumentation compression fittings, for the materials of construction as listed in ANSI/ASME B31.1.

- Section 115 covers Flared, Flareless, and Compression Joints. These designs must be qualified by Section 104.7.
  - Parker CPI and A-LOK® fittings meet or exceed the requirements of section 104.7. Verification of pressure capability is consistent with the design criteria of the code and is substantiated by the method of section 104.7.2(A)

### **ANSI/ASME B31.3 Process Piping**

Sections 315 and 335.4.2 are the applicable sections for instrumentation compression fittings, for the materials of construction as listed in ANSI/ASME B31.3.

- Section 315.3 covers other joints not conforming to listed standards. These designs must be qualified by section 304.7.2
  - Parker CPI™ and A-LOK® fittings meet or exceed the requirements of section 304.7.2. Verification of pressure capability is consistent with the design criteria of the code and is substantiated by the method of section 304.7.2(A & E)

### **For Both ANSI/ASME B31.1 and ANSI/ASME B31.3**

- Materials of construction are shown in Table 1 of Parker Catalog 4230/4233.
- Fittings and their joints shall be suitable for the tubing with which they are to be used in accordance with the minimum/maximum wall thickness of the tubing, are used within the pressure-temperature limitations of the fitting and the joint, and method of assembly recommended by the manufacturer.
- ASME B31.1 Section 115.1 and 115.2 and ASME B31.3 Section 315.2(a) and 335.4.2
  - The Parker CPI™ & A-LOK® Catalog 4230/4233, Instrument Tubing Selection Guide Bulletin 4200-TS, or the Parker Instrument Tube Fitting Installation Manual, Bulletin 4200-B4 all provide tables with the range of tubing OD and wall thicknesses which are acceptable for use with Parker CPI™ and A-LOK® Tube Fittings and the pressure-temperature rating of the tubing connection for each tube OD and wall thickness. Tubing OD and wall thicknesses combinations which are outside of this range shall not be used.

For additional information, contact the Parker Hannifin Corporation, Instrumentation Products Division.

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