

Severe Service Root and Blow-Down Valves

- Designed for high pressure BEP power applications
- Compliant with ASME Standard B31.1
- Pressure-rated to 6000 psig
- Temperature-rated to 1200°F



anything  Possible.™

Product Bulletin 4110-U-B31

Demanding pressure? Demand Parker.



Our root and blow-down valves have been engineered specifically to meet the severe service requirements of BEP power applications. With sizes through 1", these U Series needle valves are pressure-rated at up to 6000 psig (414 bar), and temperature-rated from -65° F to 1200° F (-54° C to 649° C) with Grafoil® packing and our high temperature option. A non-rotating lower stem helps extend packing life by removing rotation from the packing area. In addition, stem packing below the threads isolates the thread lubricant from the flow, ensuring adequate lubrication regardless of the media.

Features and Benefits

Feature	Benefit
• Union bonnet design	• High integrity seal under severe service
• Packing below the power threads	• Protects and isolates thread lubricants from the media
• Dust seal in the packing nut	• Prevents external contamination
• Stem swivel above the packing	• Eliminates entrapment area and increases packing life
• Choice of Grafoil® or PTFE packing	• Varying temperature resistance
• Choice of regulating or blunt stem types	• Blunt stem type helps combat wire draw in the presence of steam
• 316 stainless steel	• Reliable and long-wearing
• Wide variety of US customary and SI ports	• Flexible for a wide variety of plumbing designs
• Panel mountable	• Suitable for high vibration applications
• 100% factory tested	• Quality-assured

Specifications

Pressure Rating:

6000 psig (414 bar) CWP

Temperature Rating:

PTFE packing:
-65° F to 450° F (-54° C to 232° C)

Grafoil® packing:
-65° F to 700° F (-54° C to 371° C)

Grafoil® packing with HT option:
-65° F to 1200° F (-54° C to 649° C)

Orifice: .177" to .437" (4.5mm to 11.1mm)

Cv: .53 to 3.55

Pressure Rating and Tubing Selection:

For working pressures of A-LOK® and CPI™ tube connections, please see the Instrument Tubing Selection Guide (Bulletin 4200-TS), found in the Technical Section of the Parker Instrumentation Products Master Binder, or the Parker Instrument Tube Fitting Installation Manual (Bulletin 4200-B4).

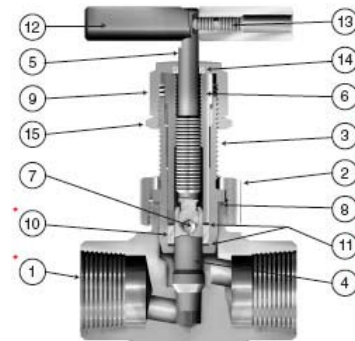
For working pressures of valves with external or internal pipe threads, please see Catalog 4260, Instrumentation Pipe Fittings.

Ordering:

Please add "B31" as a suffix to the base part number for ASME compliant valves. (For example: 8F-U12LR-G-SS-B31).

Materials of Construction

Item #	Description	Material
*1	Body	ASTM A 182, Type F316
2	Bonnet Nut	ASTM A 479, Type 316
*3	Bonnet	ASTM A 479, Type 316
4	Lower Stem	ASTM A 564, Type 630
5	Upper Stem	ASTM A 564, Type 630
6	Stem Guide	ASTM A 581, Type 416
7	Ball	440-C Stainless Steel
*8	Bonnet Seal**	Nickel-Chromium-Iron Alloy
9	Packing Nut	ASTM A 479, Type 316
*10	Packing***	Grafoil®
*11	Packing Washer	316 Stainless Steel
12	Handle****	Aluminum
13	Handle Screw	316 Stainless Steel
14	Dust Seal*****	Nylon 6/6
15	Locking Nut	Stainless Steel



* Wetted parts

* Lower Stem material is ASTM A 276 Type 316 with HT option

** Not required on U6 and U12 Series which have metal-to-metal seals

*** Optional PTFE packing is available

**** Handle material is stainless steel with HT option

***** Dust Seal not available with HT option

Lubrication: Molybdenum disulfide with soft metallic fillers

Questions on severe service valves? Contact your authorized Parker Instrumentation distributor, or the Parker Instrumentation Division at **256-435-2130**.

Parker Hannifin Corporation
Instrumentation Products Division
2651 Alabama Highway 21 North
Jacksonville, AL 36265
Phone: (256) 435-2130
Fax: (256) 435-7718
www.parker.com/ipdus

Distributed By:

anything  Possible.™