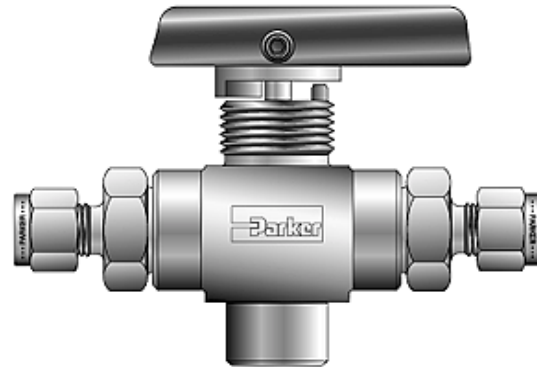


HB Series Ball Valve



MAXIMUM ALLOWABLE WORKING PRESSURES

Table 1
Maximum Allowable Working Pressure versus Seat Material

Seat Material	Stainless Steel Body Material
PCTFE	6,000 Psig at 70 °F 41.4 MPa at 21 °C
PEEK	10,000 Psig at 70 °F 68.9 MPa at 21 °C

Table 2
Maximum Allowable Working Pressure versus Port Ends

Size	Pressure Rating @100 °F (38 °C)	End Connections
2F	10,000 psig	1/8" Female NPT
4F	10,000 psig	1/4" Female NPT
4FL	10,000 psig	1/4" Female NPT Long
M6	10,000 psig	6mm CPI and ALOK
4Z	10,000 psig	1/4" CPI
4A	10,000 psig	1/4" ALOK
M8	7,975 psig	8mm CPI and ALOK
M10	6,525 psig	10mm CPI and ALOK
M12	6,162 psig	12mm CPI and ALOK
6Z	6,600 psig	3/8" CPI
6A	6,600 psig	3/8" ALOK
8Z	6,300 psig	1/2" CPI
8A	6,300 psig	1/2" ALOK



Figure 1: HB Series Ball Valve Cross Sectional View

Refer to HB Series Ball Valve Maintenance Instructions (MI142) when valve disassembly is required. The arrow on the Valve Handle may be used to indicate the normal direction of flow.

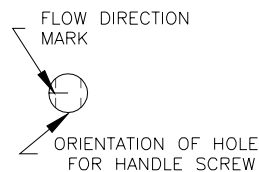
Table 3
INSTALLATION OF PANEL MOUNTED VALVES

Panel Thickness (max)	Through-Hole Diameter
3/8 inch (9.5mm)	29/32 inch (23mm)

When the Valve is mounted to a thin panel, a spacer (or washer) may be necessary to permit full Panel Nut engagement on the Valve.

1. Remove the handle by turning the Set Screw counter-clockwise with a 3/32 inch hex-socket wrench.
2. Insert the Valve through the hole in the panel and assemble the Panel Nut. Snug the Panel Nut finger-tight, followed by proper tightening.
3. Re-install the Handle and secure by turning the Set-Screw clockwise and torque to 15 in-lbs.

Note: The handle direction should point in the same direction as indicated by the mark on top of the stem as shown below:



VALVE CONNECTOR MAKE-UP INSTRUCTIONS

MALE AND FEMALE PIPE PORTS

Wrench flats are provided on the Valve Body. It is recommended a smooth-jawed wrench or vise be used to grip the Valve Body.

1. On the male threaded part of the connection, apply a high quality pipe joint compound or PTFE tape made for this purpose. When PTFE tape is used, it is recommended two full turns of tape be applied. PTFE tape should not be overhanging or covering the first thread
2. Engage the Valve and the other component part together, until hand-tight.
3. With a proper wrench, holding both the Valve and the component part, continue to tighten to achieve a leak-tight joint.

ULTRASEAL CONNECTIONS

1. Insert the proper O-Ring into the UltraSeal fitting's O-Ring groove. Position the UltraSeal gland sealing face against the O-Ring, and then advance the Nut to a finger-tight position.
2. A positive seal is obtained by advancing the Nut no less than 1/4 turn from the finger-tight position. Proper UltraSeal make-up is achieved when a sharp rise in required application torque occurs, which indicates proper seal face contact and O-Ring seal compression into the UltraSeal groove.

VACUSEAL CONNECTIONS

1. A positive seal is obtained by advancing the Nut 1/8 turn from the finger-tight position.
2. A new gasket should be installed upon each fitting re-make to insure system pressure integrity.

TUBE FITTING CONNECTIONS

1. Insert the tube into the Valve port until the tube bottoms out in the Valve Body. Care should be exercised to insure the tube is properly aligned with the Valve Body and port.
2. Normal make-up for US Customary port sizes 1 thru 3 (1/16 thru 3/16 inch) and SI port sizes 2 thru 4 (2 thru 4 mm) is 3/4 turn from finger tight. Normal make-up for US Customary port sizes 4 thru 16 (1/4 thru 1 inch) and SI port sizes 5 thru 25 (5 thru 25 mm) is 1 1/4 turn from finger tight. For larger port sizes consult Parker Ferrule Presetting Tool Instructions.

PLEASE FOLLOW THE ABOVE DIRECTIONS FOR COUNTING THE NUMBER OF TURNS FOR PROPER FITTING MAKE-UP. DO NOT MAKE-UP TUBE FITTINGS BY TORQUE OR "FEEL". VARIABLES SUCH AS TUBING AND FITTING TOLERANCES, TUBE WALL THICKNESS, AND THE LUBRICITY OF NUT LUBRICANTS CAN RESULT IN AN IMPROPERLY ASSEMBLED TUBE FITTING CONNECTION.

A -Two ferrule A-LOK®
compression port



Z -Single ferrule CPI™
compression port



F -ANSI/ASME B1.20.1
Internal pipe threads



V -VacuSeal face
seal port



Q -UltraSeal face
seal port



M -ANSI/ASME B1.20.1
External pipe threads



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

ALL PARKER VALVES MUST PASS A RIGID OPERATIONAL AND LEAKAGE TEST BEFORE LEAVING THE FACTORY. IT IS RECOMMENDED AFTER ANY REASSEMBLY, THE VALVE SHOULD BE TESTED BY THE USER FOR OPERATION AND LEAKAGE. IF THESE INSTRUCTIONS ARE NOT FULLY COMPLIED WITH, THE REPAIRED PRODUCT MAY FAIL AND CAUSE DAMAGE TO PROPERTY OR INJURY TO PERSONS. PARKER HANNIFIN CANNOT ASSUME RESPONSIBILITY FOR PERFORMANCE OF A CUSTOMER SERVICED VALVE.

