

C Series Check Valve with PTFE Seats



Maximum Allowable Working Pressure

Valve Model	Stainless Steel Valves
C2T	4000 psi @ 70 °F (27.6 MPa @ 21 °C)
C4T	
C6T	
C8T	
C12T	
C16T	

Always consult your authorized Parker representative if questions arise. The arrow on the Valve Body indicates the normal direction of flow.

CAUTION: THIS VALVE IS DESIGNED TO HAVE A GAP BELOW THE OUTLET HEX. PROPER VALVE FUNCTION DICTATES THE GAP EXIST.

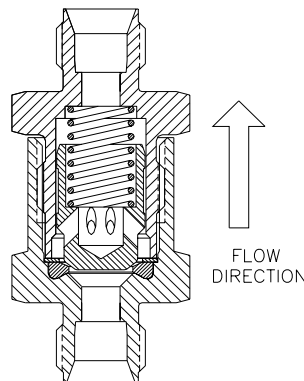


Figure 1: C Series Check Valve with PTFE Seats Cross Sectional View

DISASSEMBLY

WARNING: MAKE CERTAIN THE SYSTEM IN WHICH THE VALVE IS INSTALLED IS DRAINED AND/OR EXHAUSTED OF ALL PRESSURE BEFORE STARTING VALVE REMOVAL OR DISASSEMBLY. FAILURE TO DO SO CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

1. Verify that the Check Valve Maintenance Kit being used is appropriate for the valve's size, the Seal material, the Spring's crack pressure rating, and service requirements. Always contact your authorized Parker representative if any questions arise.
2. Clamp the Cap (next to the flow symbol's arrow) at its hex-flats. Vertical orientation of the check valve with the flow arrow pointing UP is recommended.
3. Loosen the Cap from the Body by turning counter-clockwise with the following size hex wrench:

C2T valves	5/8 inch
C4T valves	3/4 inch
C6T valves	1 inch
C8T valves	1-1/4 inch
C12T valves	1-3/8 inch
C16T valves	1-5/8 inch
4. Remove and discard the Spring from the Body. Remove and save the Poppet. Gently remove and discard the PTFE Seal and Washer at the bottom of the Body cavity, exercising care not to damage or scratch the Body's interior.

REASSEMBLY

1. Make certain all parts are free of dirt or other contamination before starting reassembly of the Valve.
2. Refer to Figure 1. Place the new Seal in the Cap exercising care not to damage or scratch the Cap's interior.
NOTE: Correct orientation of the Seal per Figure 2 is required for proper Valve operation.
3. While holding the Body upright, place the new Spring in the Body. Ensure the Spring is properly positioned in the pocket per Figure 2.
4. Install the Poppet over the Spring.
5. While holding the Cap upright, place the PTFE Seat into the cavity in the bottom of the cap. Insure it is sitting flat within the cavity.
6. Insert the Washer into the Cap. Insure it is sitting flat within the cavity.
7. With the Cap sub-assembly still in a vertical position, install the Body sub-assembly to the Cap until finger-tight. Engage by turning clockwise with the hex socket torque wrench and torque requirement specified in the following Table. *DO NOT OVER TORQUE*

Valve Size	Stainless Steel Body
C2T	50 ft-lbs (67.8 N-m)
C4T	50 ft-lbs (67.8 N-m)
C6T	60 ft-lbs (81.3 N-m)
C8T	75 ft-lbs (101.7 N-m)
C12T	75 ft-lbs (101.7 N-m)
C16T	75 ft-lbs (101.7 N-m)

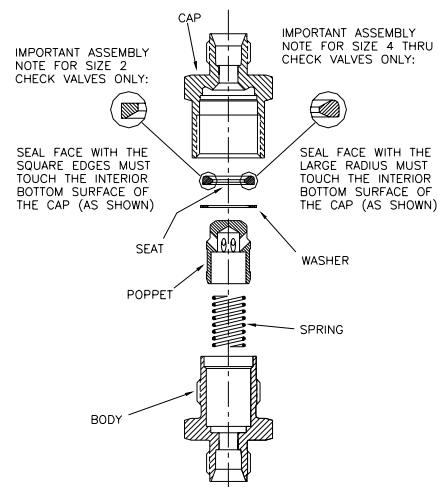


Figure 2: C Series Check Valve with PTFE Seats Exploded View

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.

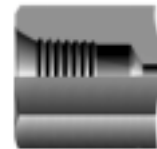
A -Two ferrule A-LOK[®] compression port



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.

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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.

