SQUIBB TAYLOR

MANUFACTURED BY PARKER - PGI DIVISION

Procedure For Replacing The Excess Flow Assembly

September 2013 *Form* FVC100 - Rev 03

IMPORTANT: KEEP THIS DOCUMENT WITH THE PRODUCT UNTIL IT REACHES THE END USER.

Before installation or removal of any tank valve, the system must be purged of all product. Personal Protective Equipment (PPE), safety gloves, goggles and clothing should be worn. For proper handling and storage of NH_3 refer to ANSI Standard K61.1. An abundant supply of fresh water should be available to provide immediate first aid treatment for exposure to NH_3. To prevent the accidental opening of any valve, never grasp or carry a valve by its Hand wheel ⑪ or handle. To ensure a long term and safe operation, the manufacturer recommends that under normal service conditions this product should be inspected at least once every year and be repaired or replaced as required.

Closure of the excess flow check in the valve will not totally stop the flow of NH_3 since the check disk has a small opening in it to allow the check disk to automatically reset. Piping should not allow one withdrawal valve to "back feed" the other. Appropriately located back checks must be installed. The operation of the excess flow device should be tested before every season.

TOOLS REQUIRED: Safety Equipment (i.e. Gloves, Goggles, and Clothing), 12" Adjustable Wrench, 7/16" Open-End or Boxed-End Wrench, Torque Wrench, Strap Wrench and 9/16" socket.

NOTE: The A480N-60 Excess Flow will close at approximately 60 GPM of Liquid NH_3. Indicated on the information disc ⑩
The A480N-45 Excess Flow will close at approximately 45 GPM of Liquid NH_3. Indicated on the information disc ⑩
The 60 GPM and 45 GPM excess flow offering gives the user a choice to match the excess flow setting as close as possible to the maximum expected Liquid NH_3 flow rate to be used.
For example, if 30 GPM of Liquid NH_3 is the highest flow rate the application will use, then choose the A480N-45 (45 GPM Liquid NH_3).

Installation / Removal

IMPORTANT: EMPTY THE TANK BEFORE REMOVING THE EXCESS FLOW VALVE.

1. Tightly secure the Valve Body ① on a Bench Vise. (Do not clamp the valve on excess flow assembly or bonnet).
2. Remove the existing Excess Flow Assembly ② using a wrench. Be careful not the damage the threads.
3. Before re-assembly, clean the metal components with a solvent, wire brush the threads and wipe or blow dry with air.
4. Inspect the Valve Body ① for any damage on the threads ⑤.
5. Add 3 drops of Loctite ④ provided with the service kit on the threads of the New Excess Flow ③.
6. Install the Excess Flow ③ on the Valve Body ① using the strap wrench and torque it to 7-8 Ft-lbs.
7. Depress Disc ⑥ to ensure free movement for proper functioning of the Excess Flow Assembly ③.
8. Remove the Hand wheel Nut ⑦, Washer ⑧, and Hand wheel ⑨ from the Valve.
9. Install the New Info Disc ⑩ (Gold Color) (above the existing one) over the Packing Nut ⑪.
10. Install the Hand wheel ⑨, Washer ⑧, and Hand wheel Nut ⑦ onto the Stem ⑫. Torque Nut ⑦ to 5-6 Ft-lbs. using 9/16" socket.
11. Remove the valve from the bench vise and wait for 3 hours for Loctite to dry before returning to service.

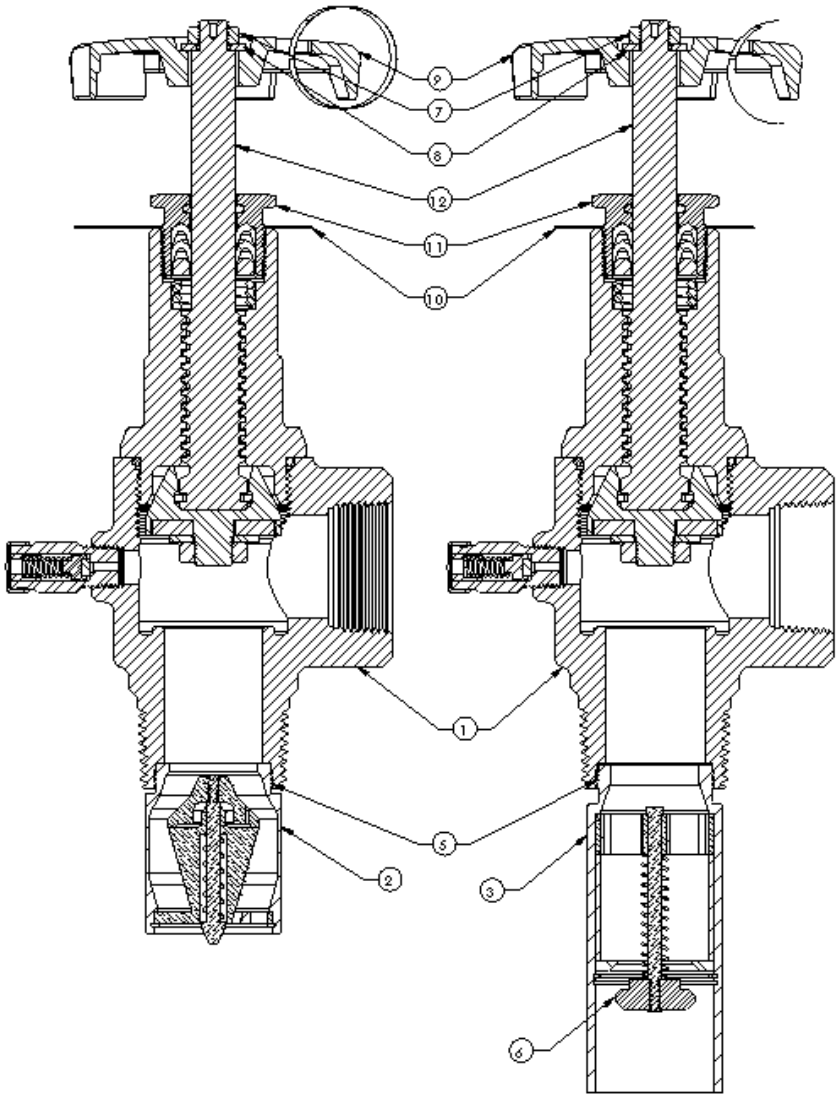
NOTE: For a Circular info disc use 60 GPM excess flow assembly.
For a Triangular info disc use 45 GPM excess flow assembly.

NO.	Part NO.	DESCRIPTION	QTY.
1	X	VALVE BODY	1
2	X	EXCESS FLOW ASSEMBLY (OLD)	1
3	X	EXCESS FLOW ASSEMBLY (NEW)	1
4	NOT SHOWN	LOCTITE	1
5	X	THREADS	1
6	488-2001	DISC	1
7	312-2015	HANDWHEEL NUT	1
8	312-2014	WASHER	1
9	479-5013	HAND WHEEL	1
10	X	INFORMATION DISC	1
11	312-5017	PACKING NUT	1
12	480-5003	STEM	1

INFO DISC ⑩ SHAPES

60 GPM 45 GPM

GENERAL INFORMATION
MATERIAL COMPONENTS
CARBON STEEL
DUCTILE IRON
STAINLESS STEEL
N674-70
ALUMINIUM
416 STAINLESS STEEL



AVAILABLE KITS		
NUMBER	**NAME**	**ASSEMBLY PART NUMBERS**
S480N-1160 S482N-1160 S480N-1160-H	1-1/2" 60 GPM Excess Flow Assembly.	③④⑩
S480N-1145 S482N-1145	1-1/2" 45 GPM Excess Flow Assembly.	③④⑩
S484N-1145 S486N-1145	1-1/4" 45 GPM Excess Flow Assembly.	③④⑩

WARNING!

Improper Anhydrous Ammonia (NH_3) Application system design, or the improper selection and use of the excess flow valves in NH_3 application systems can result in death, personal injury and / or property damage due to unintentional NH_3 releases. Exposure to NH_3 releases can cause injury or death by, for example, chemical burns, blindness, lung damage and an immediate inability to see or drive a vehicle in the attempt to get away from the released NH_3 cloud.

All NH_3 application systems should be designed by persons with the technical skill and understanding of how the excess flow valve, associated equipment and entire system operates. Persons with the technical skill and understanding should test the system under all conditions that are likely to occur, to make sure that the excess flow valve operates as expected.

The person designing the system, with the technical skill and understanding, shall take into consideration, but not be limited to, the following criteria;

a. Ambient temperature at the time of application.
b. Tank temperature
c. Volume and pressure at the time of application
d. System plumbing effects
e. Downstream restriction effects
f. Expected flow rate
g. Tractor speed

Even when properly selected and used, an excess flow valve may not operate or stop flow in certain lower flow NH_3 leak situations. **The Excess flow safety device used in this product will close ONLY if the rated flow rate is achieved through the valve. Downstream restrictions, partial breaks and/or low tank pressure can result in failure to achieve the excess flow rate and the excess flow check WILL NOT CLOSE.** The end user should have a secondary means available to stop flow or prevent injury should a leak not be stopped by the excess flow valve. An emergency shut off device, which can be remotely actuated by the vehicle driver, should be an integral part of the system and available to stop NH_3 flow in the event it is not stopped by the excess flow valve. Additionally, personal safety equipment such as an Emergency Escape Breathing Device and a plan to isolate the vehicle cabin by, for example, turning off ventilation or air conditioning, are important safety precautions.

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User Safety Responsibility Statement for All Parker Products

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS 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 or system options for further investigation by users having technical expertise.

- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.