Delany Flush Valves
Trouble Shooting Chart

WHEN	THEN	AND YOU SHOULD
VALVE WILL NOT START TO FLUSH	1) Control stop is shut. 2) Tip of operating stem is worn. 3) Operating stem is too short.	1) Open control stop. 2) Replace operating stem, now supplied with nylon tip. 3) Install correct length stem as indicated in parts listings.
VALVE STARTS FLUSHING BUT CLOSES IMMEDIATELY	1) Diaphragm is ruptured. 2) Valve contains an oversized bypass orifice (pinhole). 3) Tip of operating stem is worn. 4) Seat guide is loose.	1) Replace diaphragm. Good preventive maintenance includes simultaneous replacement of No. 8 auxiliary seat supplied in same kit. 2) Install diaphragm with correct bypass size from proper kit indicated in parts listing. Valves with 3/4" supply or smaller use larger orifice sizes than valves with 1" supply or larger. Replace No. 8 auxiliary valve seat at the same time. 3) Replace operating stem. 4) Tighten.
VALVE GIVES TOO SHORT A FLUSH OR TOO LONG A FLUSH	1) Valve needs regulation. 2) Valve contains an oversized bypass orifice. (Flush too short.) 3) Bypass orifice is partially blocked. (Flush too long.) 4) Tip of operating stem is worn.	1) Remove No. 3 cover screw. Insert screwdriver and turn No. 4 regulating screw counterclockwise for longer flush or clockwise for shorter flush. If valve is equipped with non hold open feature, timing must be changed by trial and error of different bypass orifices. 2) Install diaphragm with correct bypass size from proper kit. Replace No. 8 auxiliary valve seat at same time. Step (1) above should be tried first. 3) Clean monel bypass. Hold pinhole up to light. If blocked, pinhole may be cleaned with pin, air hose, or acid solution. 4) Replace operating stem.
VALVE CONTINUES TO RUN FULL FORCE OR CONTINUES TO RUN BUT ONLY SLIGHTLY	1) Bypass blocked. 2) Foreign object is blocking closing action. 3) Leakage is occurring at the No. 8 auxiliary valve seat due to foreign objects or wearing and pitting of the auxiliary valve. 4) Water pressure and/or volume is insufficient to fill upper chamber of valve and cause valve to close. 5) Auxiliary valve head has separated from rod allowing leakage. 6) Slight leakage is present at main valve seat due to minute foreign object embedded in diaphragm. 7) Main valve seat is loose.	1) Clean as indicated in (3) immediately above. 2) Remove foreign object. Smooth any indentations on under side of diaphragm. If diaphragm is mutilated, replace. 3) Remove any foreign objects from No. 8 auxiliary valve seat. Examine seating surface of auxiliary valve for pitting or cutting. Replace as needed with new auxiliary valve, now supplied by Delany with long lasting Delrin head. Replace No. 8 part at same time. 4) Increase pressure and/or volume. If several valves are running at one time, pressure may be built up by shutting off all control stops and then opening them again one by one. 5) Replace auxiliary valve and No. 8 auxiliary valve seat. Auxiliary valves are now produced with solid Delrin heads, eliminating this chance of leakage. 6) Remove any foreign objects. If diaphragm has been scarred at contact point with main valve seat, replace diaphragm. If main valve seat is scored or pitted, replace. All Delany Valves are equipped with renewable main valve seats, most now supplied in Delrin for extra durability. 7) Tighten.
WATER SPLASHES FROM BOWL	The pressure at the fixture is in excess of that set by the fixture manufacturer as an upper limit.	Install a pressure reducing valve in the supply line. Failing this, reduce the volume of water flowing through the flush valve by partially closing the control stop.
VALVE WILL NOT PASS ENOUGH WATER TO SATISFACTORILY SYPHON BOWL	1) Control stop not completely open. 2) Seat guide for valves with 3/4" supply or smaller has been installed in valve in error. 3) Insufficient volume of water is being supplied to valve due to low pressure or undersized piping, or both.	1) Open control stop wide. 2) Replace with seat guide for valves with 1" supply or larger. 3) Establish volume of water available by removing entire diaphragm operating assembly from flush valve, replacing cover, and flushing valve. This converts valve into a simple elbow. If adequate flush still cannot be obtained, water pressure or pipe sizes, or both, must be increased.
VALVE GOES OFF BY ITSELF	Water in upper chamber of valve has been syphoned out by demand from lower levels. When pressure is restored, valve flushes automatically.	Install diaphragm with non syphon bypass, available as special equipment for any Delany Valve. Consider increasing water pressure or replacing piping since system is in critical condition.
FLUSHING ACTION IS NOT QUIET ENOUGH	1) High pressure is causing abnormal noise in water supply system. 2) Flush valve is not quiet type. 3) Turn-to-Silence equipment is not properly adjusted for maximum quietness. 4) Localized roaring noise of fixture may be contributing factor.	1) Install pressure reducing valve in water supply line. 2) Install Delany Valve with Turn-to-Silence equipment, standard at no extra cost. 3) See instructions for adjusting elsewhere in this literature. 4) Make quick test to isolate fixture noise from any valve noise. Place cardboard under toilet seat all but covering opening of bowl. Valve noise will then be readily identified. If fixture is noisy, install quiet action bowl.
VALVE LEAKS AT HANDLE	1) No. 26 handle packing is worn, if valve is fitted with old style spring loaded handle. 2. No. 222-3 flexer has fatigued and ruptured.	1) Tighten No. 28L packing nut or replace No. 26 packing. For long range leakfree performance and economy, install Delany Valve with patented Rubberflex sealed handle unit, standard on almost all models. 2) Replace No. 222-3 part to regain new spring and sealing action. Good preventive maintenance includes simultaneous replacement of operating stem.
WATER LEAKS FROM AIR VENTS OF VACUUM BREAKER	1) No. 427A rubber sleeve has ruptured from fatigue. 2) Vacuum breaker is being subjected to excessive back pressure by restrictive urinal or water closet.	1) Replace No. 427A part. Refer to "How To Service Vacuum Breaker" in the Flushboy Renewal Parts Folder, FV-3. 2) Open up flow control on urinal if such a device is provided. Also, flow rate through valve may be reduced at control stop. If condition persists, contact manufacturer of fixture for corrective action.