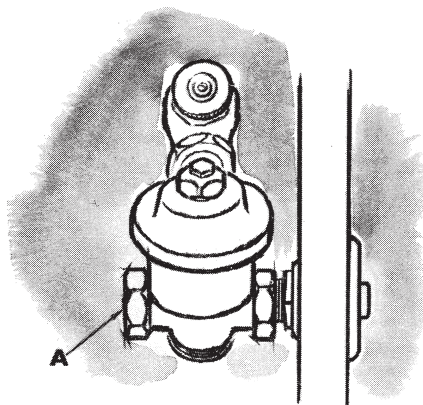


12 AIR CHAMBERS AND WATER HAMMER ARRESTORS

The installation of air chambers and/or water hammer arrestors with flush valves is recommended as good plumbing practice. They should be installed as near to the fixture as possible, will prevent water hammer, and in the case of air chambers are helpful in supplying a reservoir of water in the event of sudden pressure drops. Delany Valves utilize a non-elastic diaphragm, have a slow and noiseless closing action, and are not a potential cause of water hammer while in good repair.

13 TWIN HANDLE OPENINGS FOR RIGHT OR LEFT HAND ROUGH (on concealed valves only)

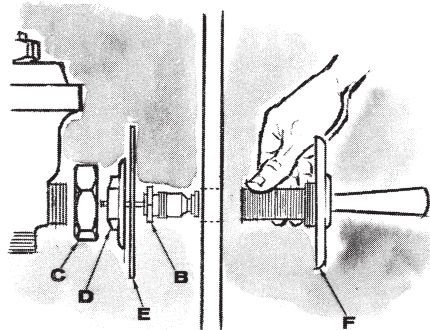
All concealed models are supplied with two handle openings 180 degrees apart to allow either left-hand or right-hand roughing-in. If roughing is required on opposite side, remove cap (A) and interchange with handle assembly on other side of body.



14 HOW TO INSTALL HANDLE, PUSH BUTTON, OR FOOT PEDAL ASSEMBLY (on concealed valves with vandal proofing only)

Remove wall sleeve bushing (B), coupling nut (C), locknut (D), and bearing plate (E) in that order. Insert remainder of handle assembly through wall from finished side. Reassemble above parts in reverse order, making sure wall sleeve bushing (B) is all the way home. Make up coupling nut (C), to valve body.

If valve is supplied with handle or push button assembly **without** vandal proofing, wall flange (F) may be unscrewed by hand and entire assembly inserted through wall from rough side. Then, reassemble wall flange (F).



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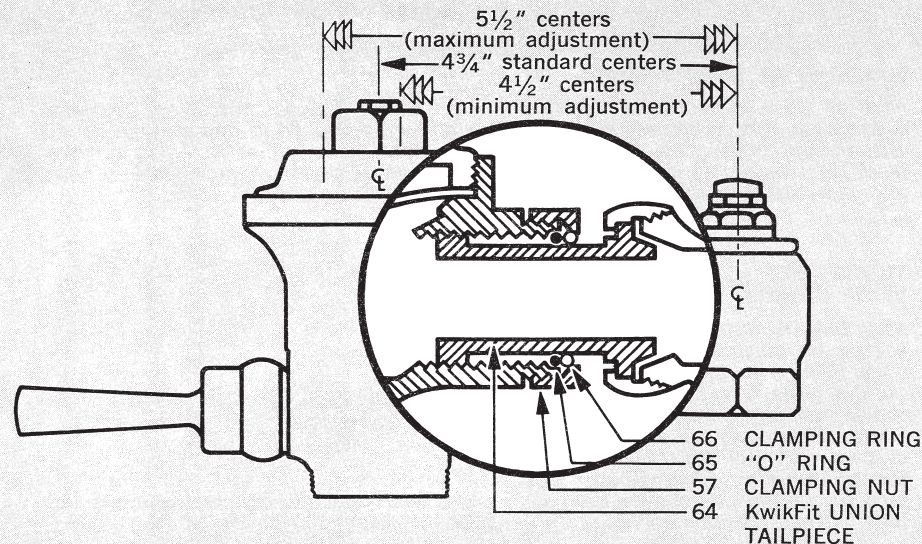
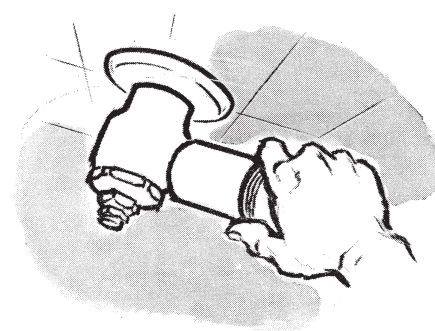
DELANY PRODUCTS, CHARLOTTESVILLE, VIRGINIA 22901
434/296-0166

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Installation Tips

1 MOUNTING OF STOPS

To mount angle stops on IPS stubs, especially on projects calling for large numbers of flush valves, eliminate wrenching by screwing a coupling and a short length of 1" pipe hand tight to the union outlet of the stop. Swing this "special tool" until stop is tight on stub. Job goes easier and faster. The chrome remains clean and unmarred.



2 "KWIKFIT" ADJUSTABLE CENTERS

All Delany Valves are shipped with No. 64 KwikFit union tailpiece locked in place for standard 4 3/4" centers. If variation in centers between 4 1/2" and 5 1/2" is desired, loosen No. 57 clamping nut using flat jawed wrench on the two flats provided. Spin No. 64 KwikFit union tailpiece in or out to position desired. One complete turn moves tailpiece 1/16". Make up on No. 57 clamping nut to lock valve at new centers.

Minimum centers are determined by stopping action of a shoulder at base of main valve seat. Maximum centers are determined by ability to make up No. 57 clamping nut to original position. If No. 57 clamping nut cannot be fully made up, centers have been extended beyond design limits and slight leakage may occur. To correct, decrease centers until leakage is eliminated.

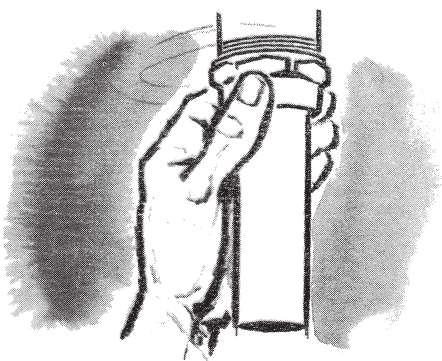
If centers of more than 5 1/2" are desired, No. 64 KwikFit union tailpiece is available in longer sizes in 1" increments. Next longer size above standard is No. 64-1 KwikFit union tailpiece (allows variation from 5 1/2" centers to 6 1/2" centers), next longer size is No. 64-2 KwikFit union tailpiece, etc.

3 CONNECTING THE DELANY VACUUM BREAKER

The Delany VB and flush connection are of unitized design and are coupled to the valve outlet in one operation. When making up the cowl nut to the valve outlet, a hand tight connection is sufficient. If further wrenching is done, use one quarter turn at most. The shoulder of the rubber sleeve in the vacuum breaker is its own gasket and will not leak if this light pressure is applied.

4 FACTORY ASSEMBLED HANDLES, PUSH BUTTONS, OR FOOT PEDALS

All chrome plated Delany Valves for exposed use are shipped with handles (or push buttons or foot pedals) locked in place and pretested. No field adjustment of any kind is required.

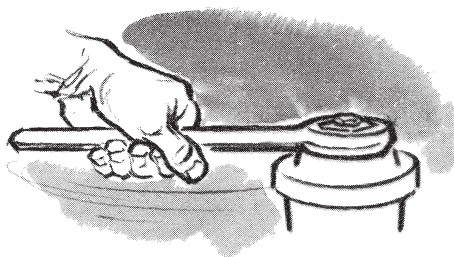


5 FLUSHING OF SUPPLY LINES

After all flush valves on a project are connected to fixtures and water pressure is available, it is recommended that supply piping be flushed to remove pipe chips, dirt, foreign bodies, etc. from the system. Open cover of each valve, remove diaphragm assembly as a unit, and replace cover. Open each stop wide in turn and allow water to run. Shut stop and replace operating parts in valve.

6 TIGHTENING VALVE COVERS

After flushing supply lines, valve covers should be reassembled and locked in place using a standard 1 1/4" box wrench on the large hex. Use of box wrench rather than two jawed flat wrenches insures better purchase and insures that chrome will not be crushed at hex points. Under no circumstances should pipe compound or dope be used on covers. Such sealants are not required and may result in future service calls because of clogged bypasses in the valves.



7 HOW TO SET FOR MINIMUM FLUSHING NOISE

If valve is equipped with Delany Turn-to-Silence equipment (stamped on both valve cover and stop bonnet) adjust as follows. Unless pressure at valve changes radically, the setting is permanent.

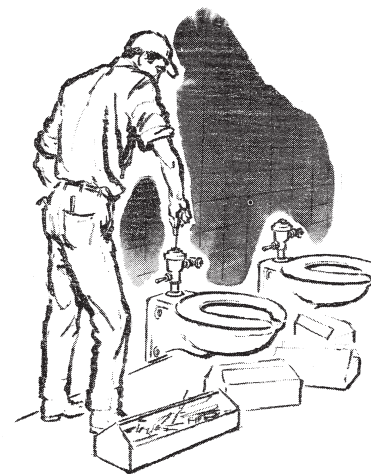
Open Turn-to-Silence stop wide. Trip valve and note noise level. While valve is running, begin to close stop and slowly Turn-to-Silence. Depending on inlet pressure at any given fixture, there is one setting of the stop at which water noise will be hushed. If pressure is low, this optimum setting will be near the wide open position. If pressure is high, the setting will be near the closed position.

The gallonage demands of the fixture must also be satisfied. Adjustment of the SpeedSet feature in the valve cover will be helpful in this regard (see No. 8).



8 HOW TO REGULATE LENGTH OF FLUSH

The length of flush and hence water gallonage consumed per flush can be readily varied by the SpeedSet feature in the valve cover. Remove hex head protecting screw and engage regulating screw beneath with screwdriver. Turn clockwise to lower the screw and shorten flush. Turn counterclockwise to raise screw and lengthen flush. Water consumption requirements of different fixtures vary widely. The flexibility built into Delany SpeedSet regulation permits proper flushing action without waste of water. If valve happens to be equipped with non hold open feature, no regulation is possible by the regulating screw. For such valves, regulation must be achieved by substitution of different sized bypasses on a trial and error basis.



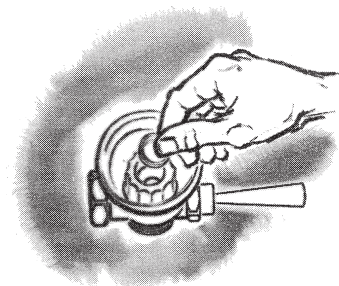
9 LOW PRESSURE CONDITIONS

Delany Valves require a minimum operating pressure of 10 psi while flushing. All plumbing fixtures demand at least 10 psi and many require higher pressures. Hence, meeting the minimum pressure requirements of the fixture will automatically satisfy the minimum needs of the Delany Valve installed.

In addition to pressure, the volume requirements of the fixture must be met to secure an adequate syphon. Most water closets need a flow rate of about 30 GPM. The lower the pressure, the larger the piping must be to supply this minimum flow.

Delany Valves with Turn-to-Silence equipment offer a plus factor in field flexibility when pressures are marginal and flow rate inadequate. The Delrin choke ring may be slipped out of the main valve seat and discarded. Flow rate will be noticeably increased. The silent action of the valve will not be impaired since the available pressure is so low.

If flow is still inadequate, a simple test may be made to see if syphonic action is possible. Shut the control stop tight, remove the operating assembly from the flush valve, and replace the valve cover only. The flush valve has in effect been converted into an elbow in the line. If a syphon cannot be obtained under this condition, it will not be obtained until the pressure is increased.



10 HIGH PRESSURE CONDITIONS

Delany Flush Valves are designed to operate at water pressures up to 100 psi. Ideally, pressures should be in the range of 30 psi to 60 psi. At pressures of 75 psi and over, the use of pressure reducing valves in supply lines is recommended. At such high pressures splashing is inevitable, noise is increased, and the life span of all plumbing brass is bound to be reduced.

11 PROTECTION OF CHROME PLATING

After valves are installed, all chrome plated surfaces should be immediately protected by vaseline or some other cover until the building is occupied. Where chrome plate is not protected during construction, damage is common for several reasons, most notably due to acid spattering by tile washers.