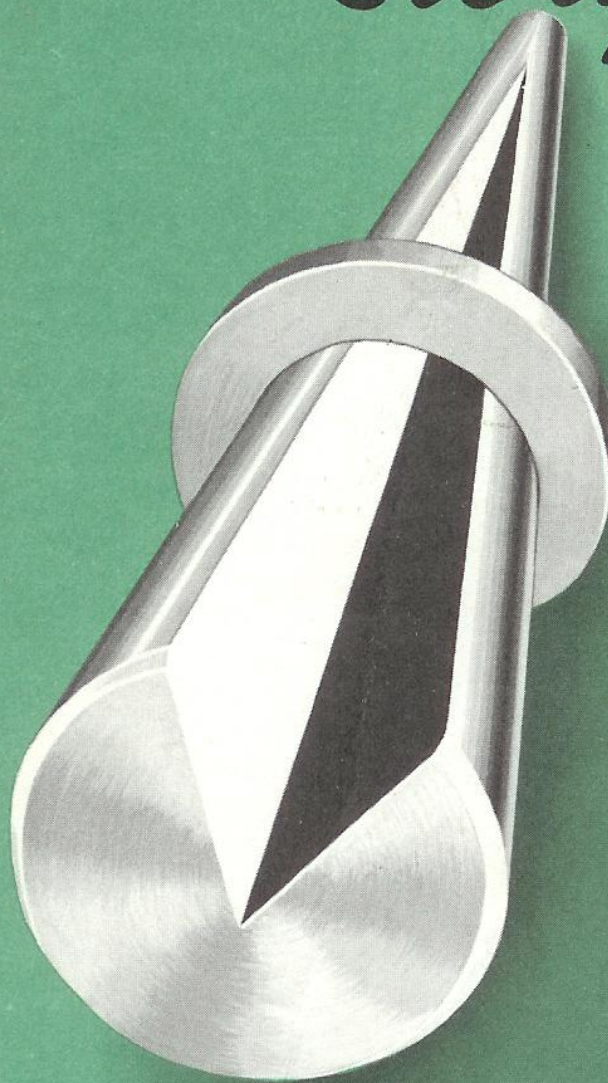


*the*  
**V-NOTCH**  
*story*



WALLACE & TIERNAN INCORPORATED



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*The purpose of this booklet is to give you the facts on W&T V-notch Chlorinators.*

*Installation information is omitted. It is available in the literature listed on the attached reply card at the end of this booklet.*

WALLACE & TIERNAN INC.  
25 Main St., Belleville 9, N. J.





### THE V-NOTCH STORY

The V-notch is a symbol of progress. It identifies a new line of Wallace & Tiernan Chlorinators.

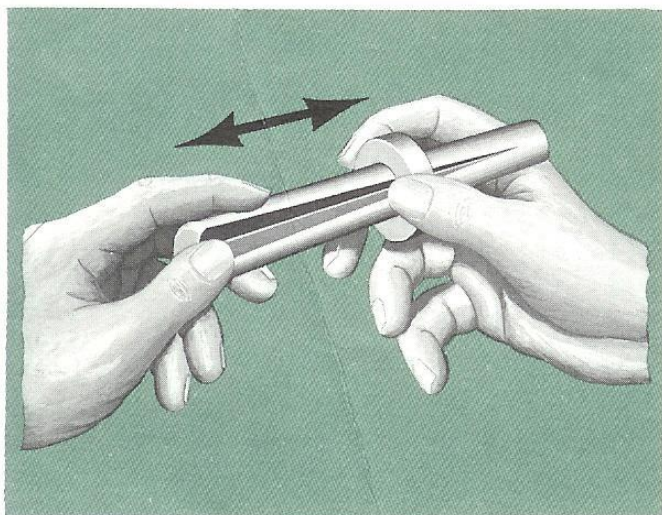
The name "V-notch" comes from the V-notch Variable Orifice, another major W&T development for controlling chlorine gas flow.

Safe chlorine control is the job of a chlorinator.

This control, the V-notch, does the job completely.

Yet it appears to be simply a grooved plug in a ring.

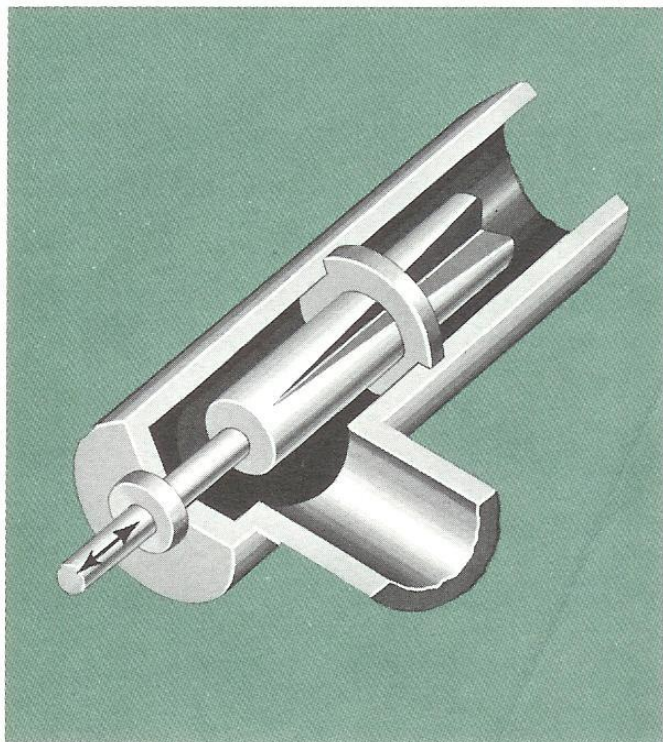
It is, of course, more than that . . . much more.

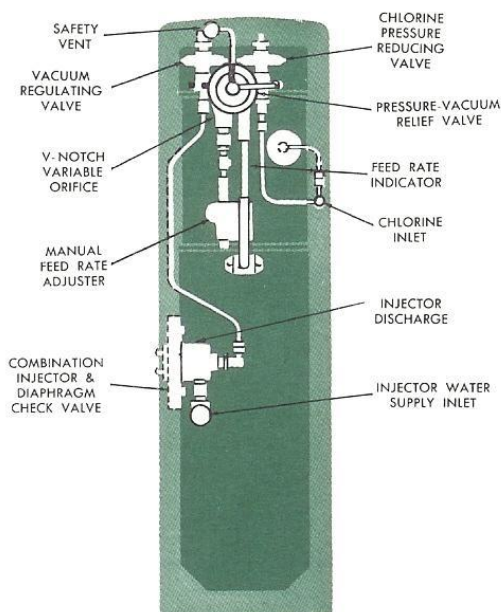


The groove in the plug is precision milled and shaped so that when you turn the control knob on your chlorinator and the plug slides through the ring, the size of the opening between the groove and the ring changes an exact amount.

You meter chlorine exactly and simply, because every position of the plug in the ring makes a repeatable orifice size—a repeatable chlorine flow rate.

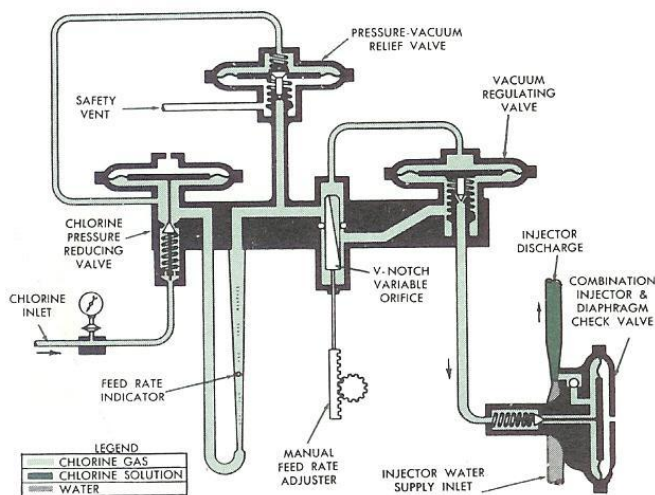
But the complete chlorinator has more to it than just the V-notch Variable Orifice.



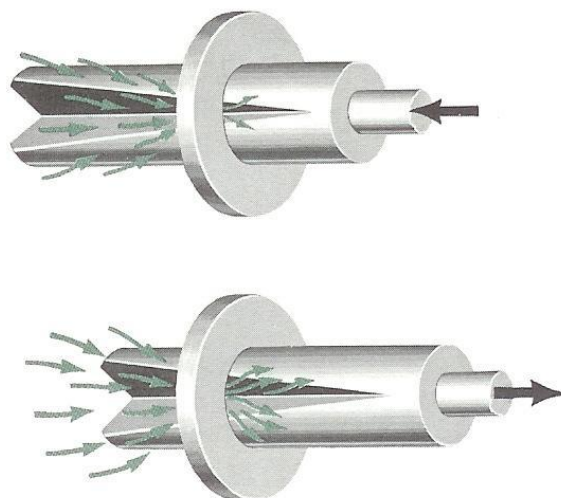


In all V-notch Chlorinators, the chlorine gas is metered under a vacuum developed by a water injector. The gas enters the chlorinator through a spring loaded, diaphragm operated, pressure reducing valve. This valve maintains the proper operating vacuum ahead of the V-notch Variable-Orifice, by reducing the chlorine gas pressure to a vacuum. This way the entire chlorinator operates at less than atmospheric pressure. If a leak develops, air leaks in, chlorine never leaks out. The gas next flows through a rotameter rate of feed indicator giving visible indication of chlorine flow, and then through the V-notch Variable-Orifice. After leaving the orifice, the gas passes through a vacuum regulating valve and then to the injector where it is dissolved in water. The vacuum regulating valve maintains a constant differential across the V-notch Variable-Orifice.

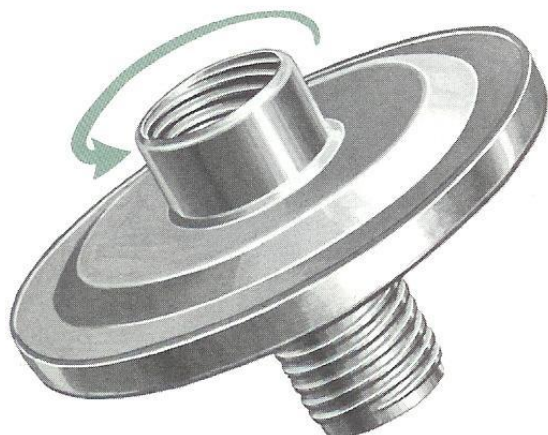
The feed rate is adjusted simply by changing the area of the V-notch Variable-Orifice. As explained before, this is done by positioning the grooved plug within its ring.



Here is the simplified flow diagram of a Series A-731 V-notch Chlorinator.

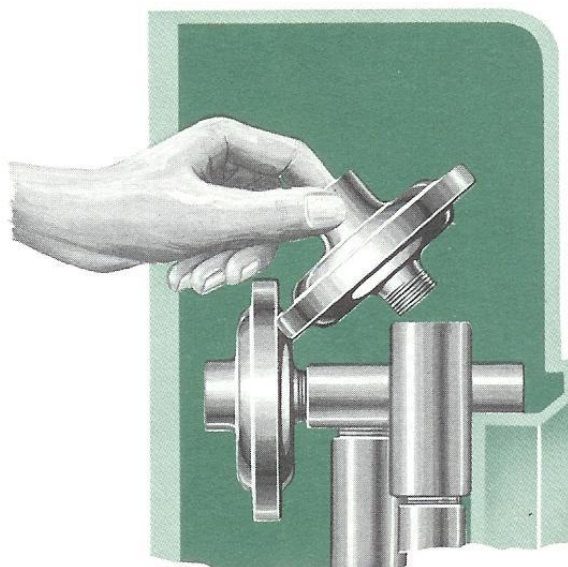






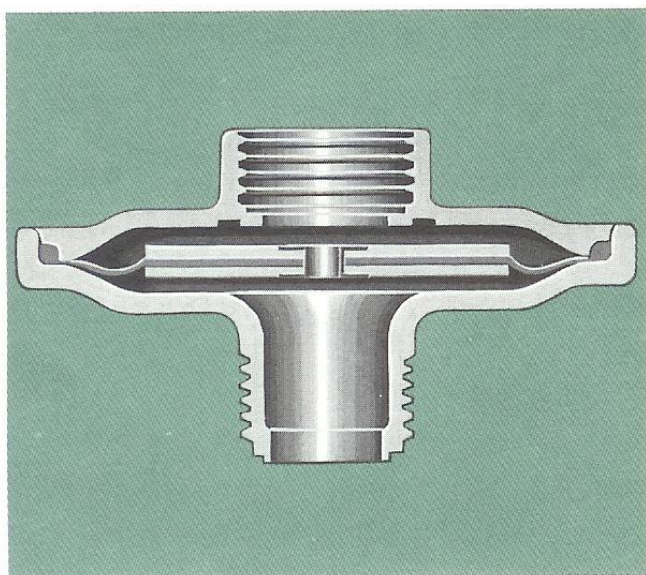
The chlorine pressure reducing valve, which regulates the vacuum ahead of the metering orifice, also acts as a positive chlorine shut-off if interruption of the injector water supply should destroy the operating vacuum.

From the flow diagram and description on pages 4 and 5 you can see that the pressure regulating valves are items of considerable importance, because they create the balances that allow the V-notch Variable-Orifice to control accurately, smoothly, repeatedly.



In most V-notch Chlorinators the diaphragm units of these valves are standard, interchangeable parts. They can be changed quickly and simply. Thread the old one out, the new one screws in as easily as changing a light bulb.

In the large capacity V-notch chlorinators, stresses require a different design for safety, while still keeping the simplicity of threaded fittings. Yet efficient maintenance was not the only purpose for these new designs. Standardizing parts also helps reduce your spare parts inventory and makes for easier operation of the chlorinator.



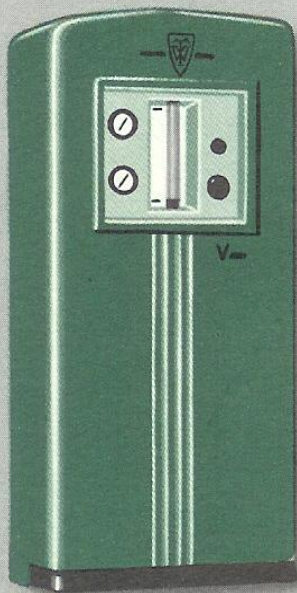


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V-NOTCH

CHLORINATORS

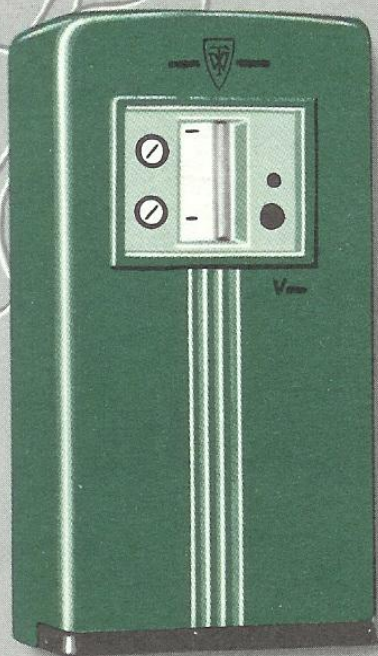


Series A-711 Chlorinator  
Max. capacity—2000#/day

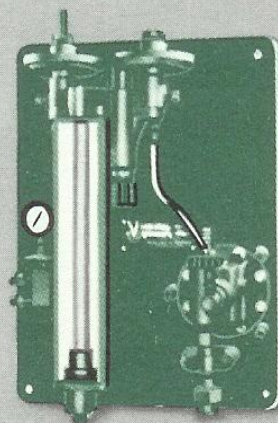
Series A-731 Chlorinator  
Max. capacity—400#/day



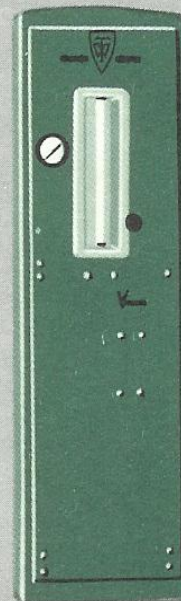
Series A-751 Chlorinator  
Max. capacity—200#/day



Series A-721 Chlorinator  
Max. capacity—8000#/day



Series A-741 Chlorinator  
Max. capacity—100#/day



From the smallest to the largest, each Wallace and Tiernan V-notch Chlorinator is in its own way a symbol of progress wedded to solid experience in the field of chlorination.





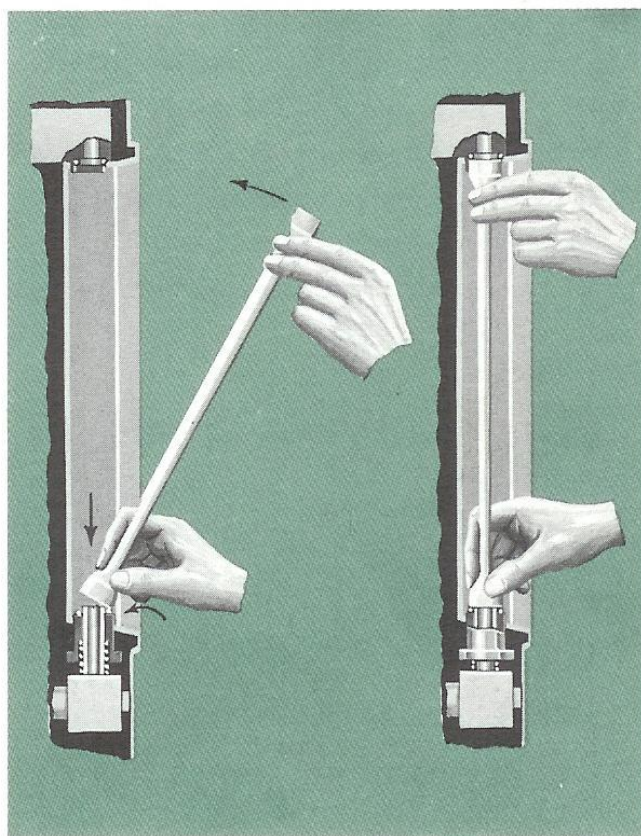
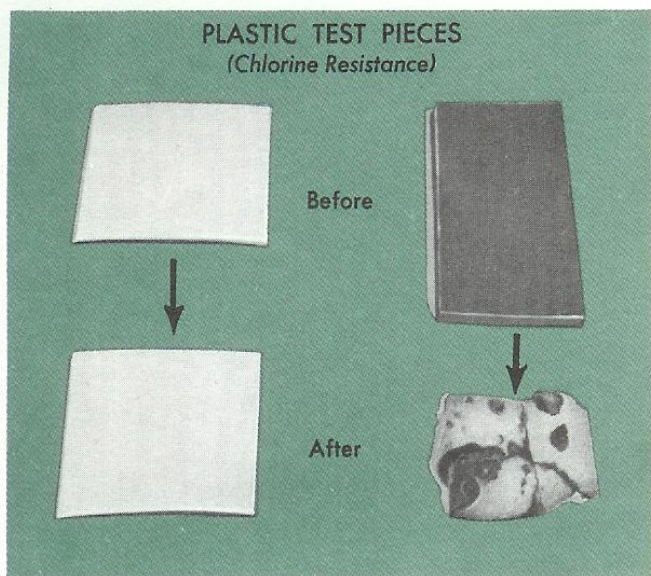
## W & T V-NOTCH

## CHLORINATORS

Now you've seen the full line of V-notch Chlorinators . . . five machines that give you the exact range and capacity you need for your job. Each V-notch Chlorinator has a full 20 to 1 range for any rotameter and by changing rotameters can cover the capacity indicated under each picture.

The chlorine that these machines meter is a gas that is extremely corrosive, especially when wet. That's why all the parts that have been discussed are made of specially selected materials, as is every part in a V-notch Chlorinator.

Through the years of W&T Chlorinator experience, it has been found that many so called "inert" materials are damaged by chlorine. Because of this, exhaustive long-term tests were conducted on all materials before any were selected to be used in building the V-notch Chlorinators.



With the exception of the rotameter, the above description covers the major working parts of the V-notch Chlorinator. The rotameter is notable, however. Not only does it indicate flow over a twenty to one range and give visible indication of chlorine feed, but the rotameter itself is readily changeable.

Snap-out mountings make it easy to replace the rotameter, or substitute one of a different range. This way, a series of rotameters with an indicating range of 20 to 1 can be used to take advantage of the full range of the V-notch Variable-Orifice.



## W&T V-NOTCH

*What does this mean to you?*

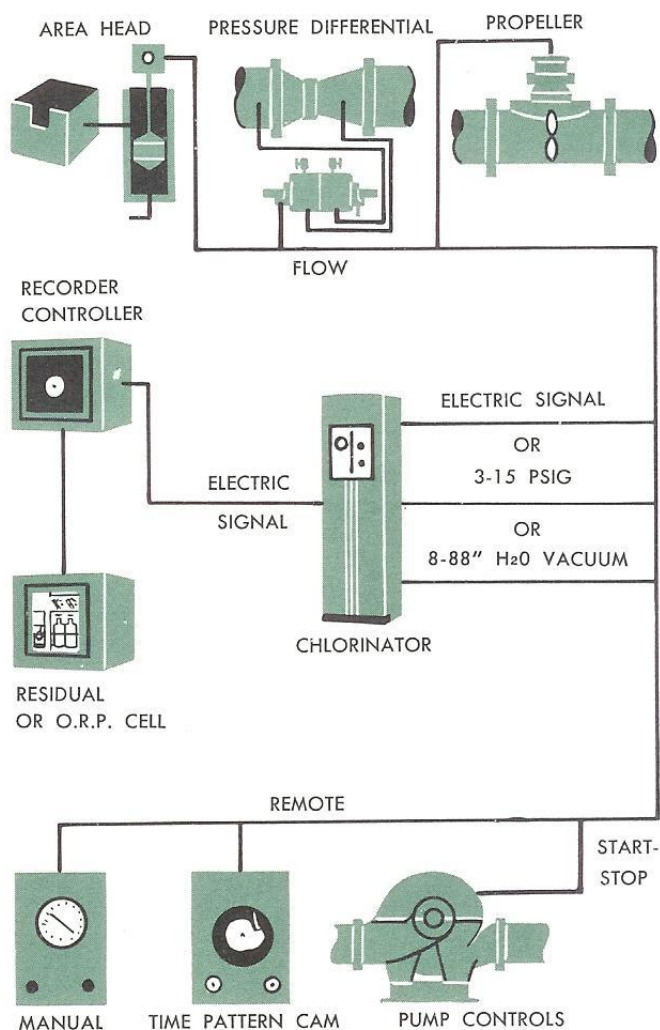
When you put all these parts together in an attractive, corrosion resistant cabinet—you have the W&T V-notch Chlorinator . . . a simple yet completely dependable, safe chlorinator. Built with all the know-how Wallace & Tiernan has at hand from over 45 years of active chlorination experience.

You also get:

- ♥ Simplified construction with interchangeable parts
- ♥ Simplified installation—no auxiliary water used
- ♥ Exact and smooth rate of feed adjustment
- ♥ Accurate continuous feed rate
- ♥ Simplified operation, easy readability
- ♥ Safety with full vacuum and fail-safe protection
- ♥ Attractive, long-lasting equipment
- ♥ Wide range manual or automatic operation

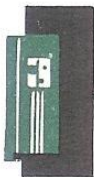
The last statement is of special importance. The V-notch Chlorinators were designed with completely flexible automation in mind. Because of this, you can operate a V-notch Chlorinator in response to any commercially available signal source, and control operation with respect to any one of a number of variables.

## CHLORINATORS



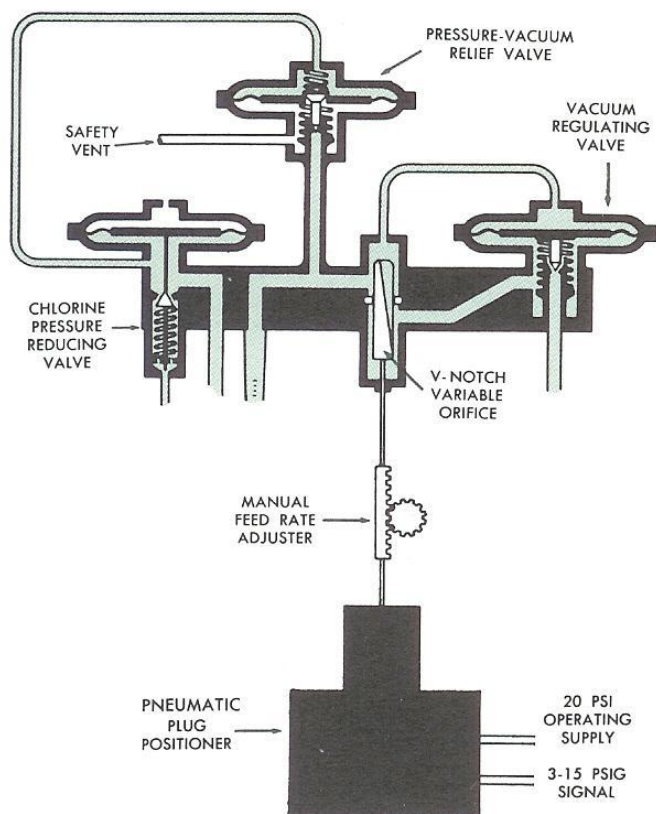
The simplest form of automatic control is start-stop. Say you want your V-notch Chlorinator to go on and off with the pump. Interruption of the injector water supply will automatically shut off the V-notch Chlorinator through the action of the Chlorine Pressure Reducing Valve. When the water supply is restored, as when the pump starts again, the V-notch Chlorinator resumes feeding chlorine at the set rate.





Beyond this level of control it is necessary to use either the V-notch Plug Positioner or the Variable Vacuum Control System. In either case, simple addition of equipment is all that is required. There is no need to adapt or alter the V-notch Chlorinator for control purposes.

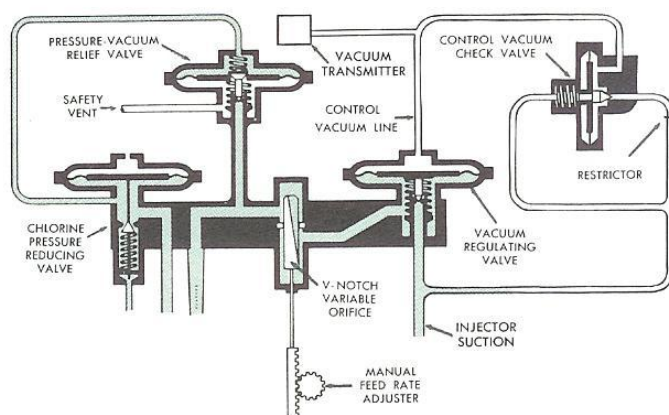
Any pneumatic or electric signal from a commercial primary meter or transmitter can be used for automatic control of the V-notch Chlorinators. In this way step-rate, additive rate, program, flow proportional, even residual and dosage control are possible.



In most cases, the available signal is applied through a controller to a V-notch positioner. The positioner automatically slides the V-notch plug to the appropriate position in the ring to create the proper orifice size and chlorine flow rate.

It is often most economical to use the Variable Vacuum Control System. Generally in this system, a vacuum produced in the chlorinator and modified by a vacuum transmitter is applied to one side of the Vacuum Regulating Valve in the V-notch Chlorinator. This in turn varies the differential across the V-notch Variable-Orifice, allowing varied feed rates at any given position of the V-notch.

The two systems can be used together, too. That means more than one variable can be handled at a time. A plant could thus have complete automation, controlling chlorine flow, for example, with respect to both the flow of water and the chlorine requirements of the water.







## W&T V-NOTCH

## CHLORINATORS

Your W&T representative will be glad to explain how one of these machines can perform economically in your plant; how it meets your immediate and future needs.

The attached card will bring him to your plant — or it will bring you additional specific literature. We hope you'll use it.

*There is a W&T Representative in:*

ALABAMA	NEW YORK
Montgomery	Kenmore (Buffalo)
CALIFORNIA	Latham (Albany)
Monrovia (Los Angeles)	Rochester
San Francisco	Syracuse
COLORADO	NEW JERSEY
Denver	Belleville
CONNECTICUT	NORTH CAROLINA
Georgetown	Charlotte
Shelton (Bridgeport)	OHIO
DISTRICT OF COLUMBIA	Cleveland
Washington	Urbana
(Bethesda, Md.)	OKLAHOMA
FLORIDA	Oklahoma City
Jacksonville	OREGON
Winter Haven	Portland
GEORGIA	PENNSYLVANIA
Atlanta	Havertown (Philadelphia)
ILLINOIS	Pittsburgh
Chicago	TEXAS
INDIANA	Dallas
Indianapolis	Houston
IOWA	Lubbock
Des Moines	San Antonio
KENTUCKY	TENNESSEE
Lexington	Knoxville
LOUISIANA	Nashville
Lafayette	UTAH
MASSACHUSETTS	Bountiful
Waban (Boston)	(Salt Lake City)
MICHIGAN	VIRGINIA
Detroit	Roanoke
Kalamazoo	WASHINGTON
MINNESOTA	Seattle
Minneapolis	WISCONSIN
MISSISSIPPI	Madison
Jackson	CANADA
MISSOURI	Montreal, P.Q.
Kansas City	Toronto, Ont.
St. Louis	Winnipeg, Man.
	Halifax, N.S.