

# Choke Valves



**ViMtrol, Inc.**

PROVEN PERFORMANCE • WORLD CLASS PRODUCTS

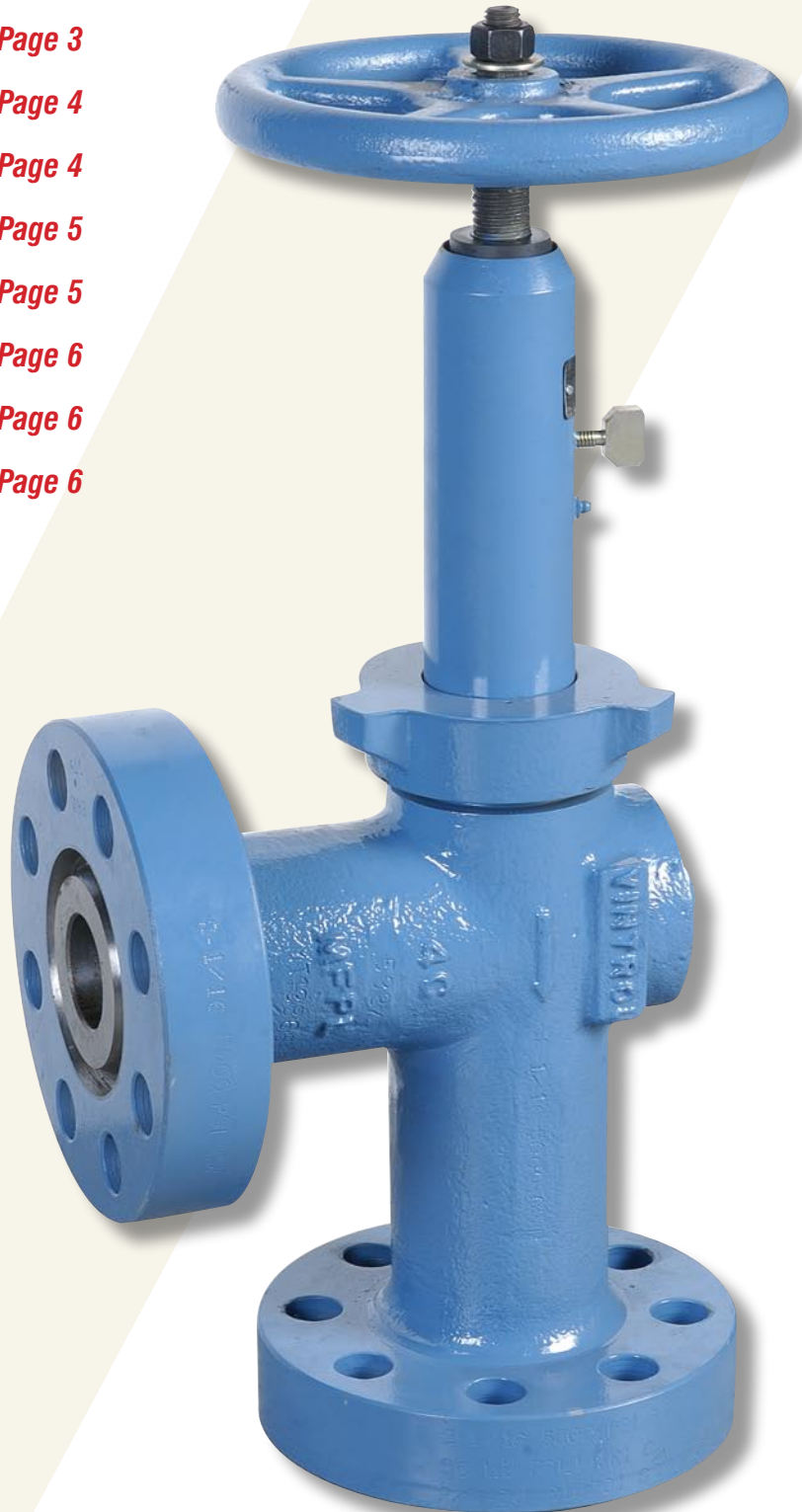
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## Standard Features on all Vi/Trol Chokes

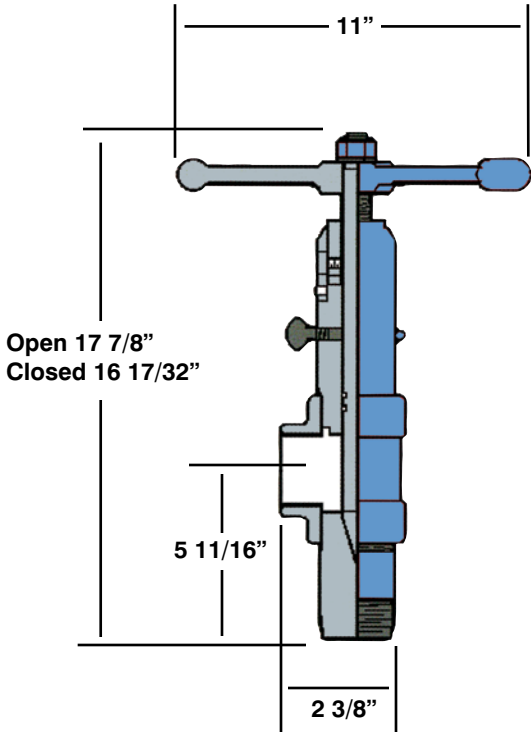
Vi/Trol threaded and flanged chokes are designed to meet or exceed today's abrasive and corrosive applications. All Vi/Trol chokes incorporate the following standard features:

- Adjustable and Positive option
- API Class 2,000 thru 10,000
- Adjustable models easily adaptable to positive configuration
- Forged or cast carbon steel body
- Heat treated, hardened steel stem and seat, with optional SS/tungsten carbide trim
- Interchangeable with Best™ & OCT™ profile chokes
- Thumbscrew stem position at any setting
- Lube fitting assures corrosion resistant smooth stem operation
- Adjustable models available with 3/4" and 1" maximum orifice, both adjustable in 1/64" increments
- Hammer nut models facilitate quick disassembly - nut is pressure relief vented for safe removal



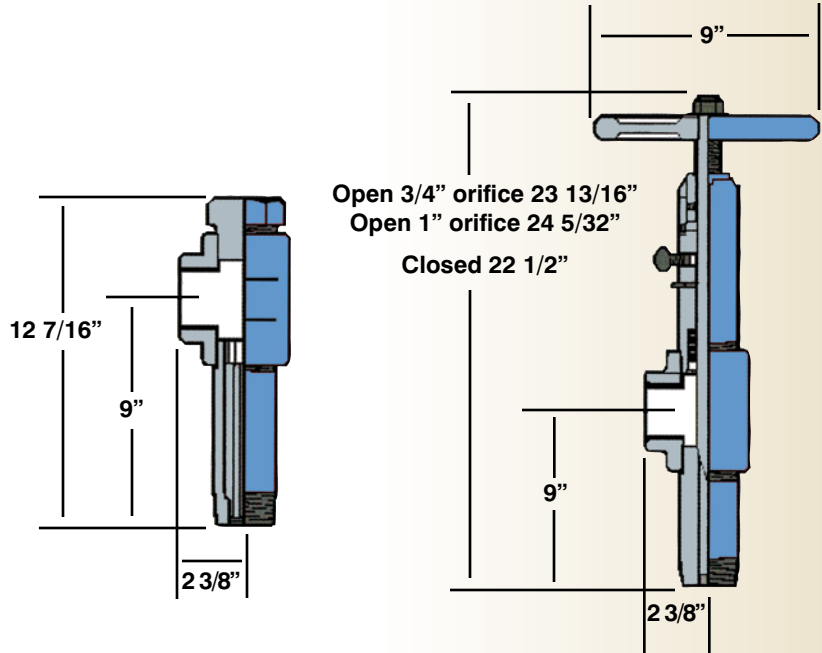
## 2" Threaded

2,000psi CWP Adjustable Mini Choke



## 2" Threaded

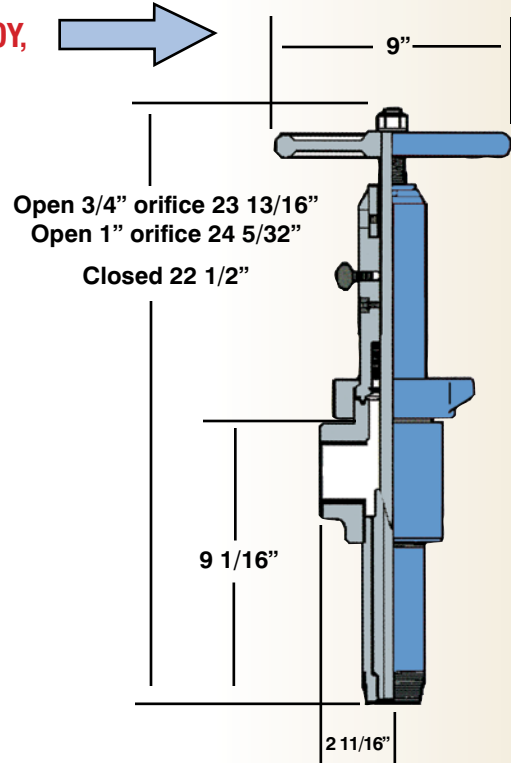
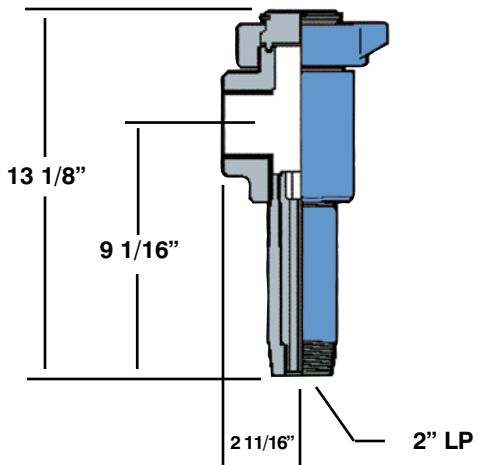
2,000psi CWP Adjustable & Positive Choke



## 2" Threaded

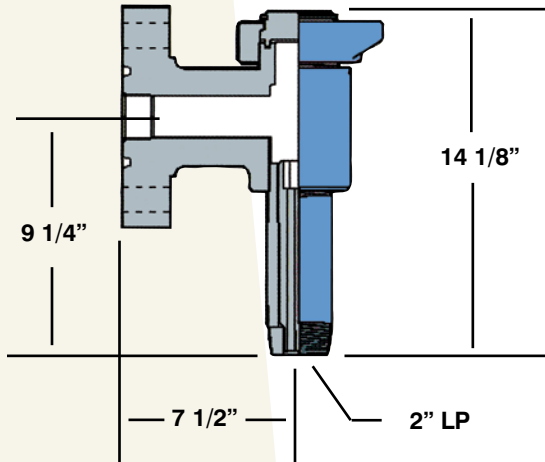
3,000 & 5,000psi CWP Adjustable & Positive Chokes

**3/4" & 1" MAXIMUM ORIFICE AVAILABLE IN LOW ALLOY, STAINLESS STEEL AND SS/TC TRIM**

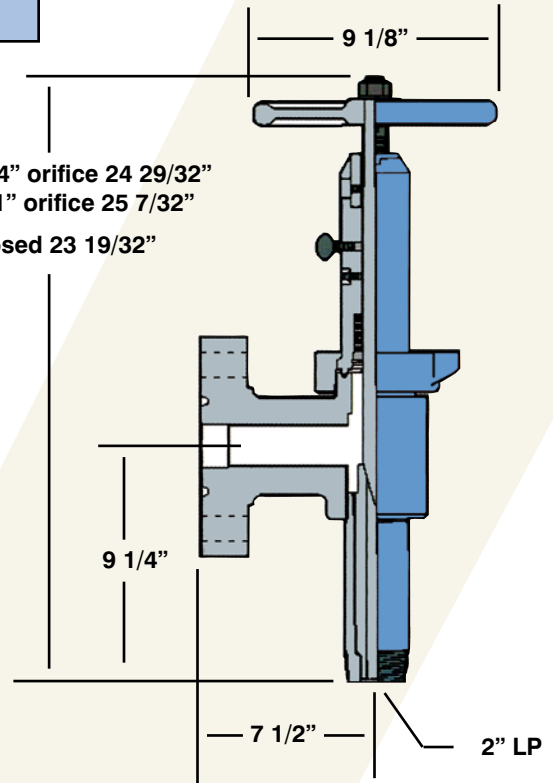


## 2" Threaded x Flanged

3,000 & 5,000psi CWP Adjustable & Positive Chokes



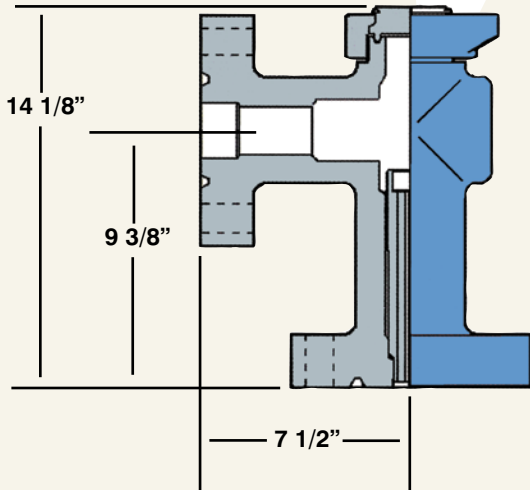
Open 3/4" orifice 24 29/32"  
Open 1" orifice 25 7/32"  
Closed 23 19/32"



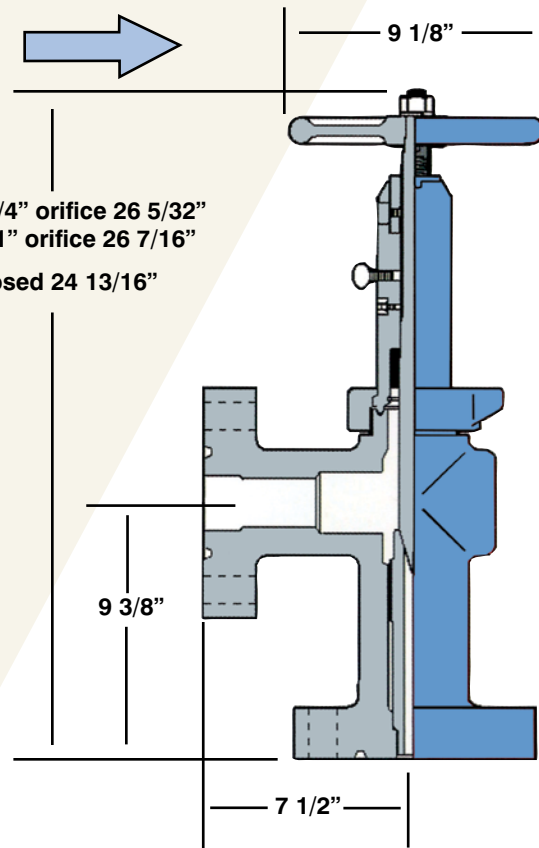
## 2 1/16" Flanged x Flanged

3,000 & 5,000psi CWP Adjustable & Positive Chokes

3/4" & 1" MAXIMUM ORIFICE AVAILABLE IN LOW ALLOY,  
STAINLESS STEEL AND SS/TC TRIM

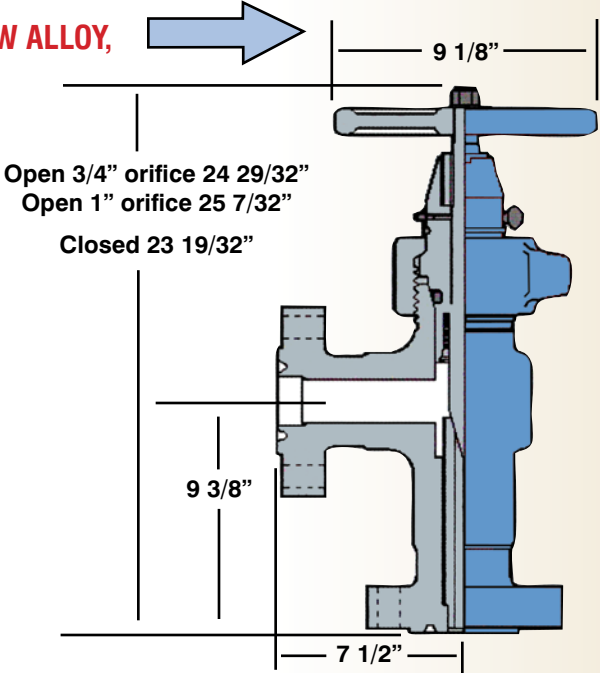
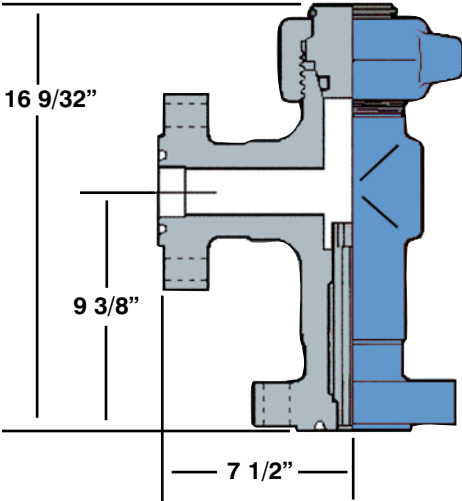


Open 3/4" orifice 26 5/32"  
Open 1" orifice 26 7/16"  
Closed 24 13/16"



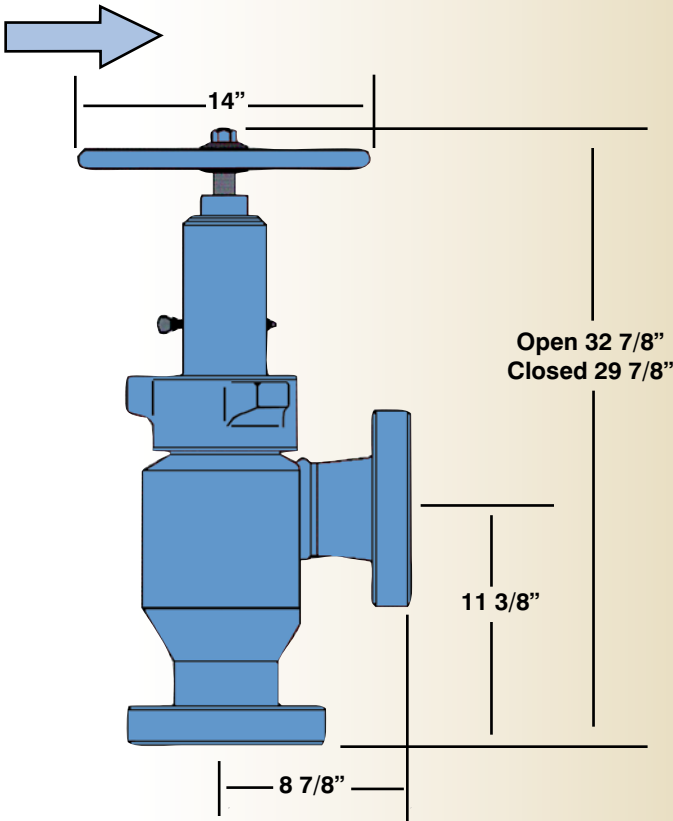
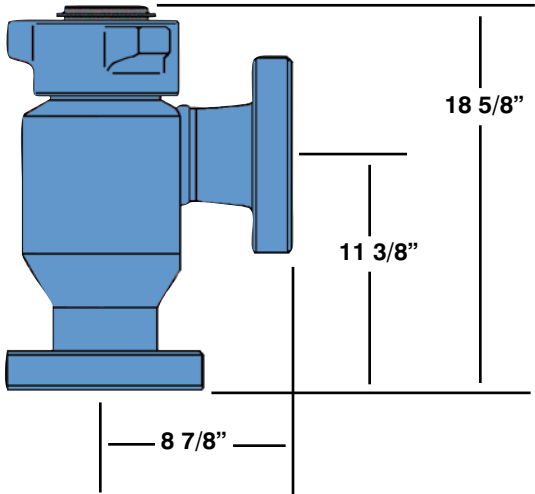
**1 13/16" & 2 1/16" Flanged x Flanged**  
*API 10,000psi CWP Adjustable & Positive Chokes*

**3/4" & 1" MAXIMUM ORIFICE AVAILABLE IN LOW ALLOY,  
 STAINLESS STEEL AND SS/TC TRIM**

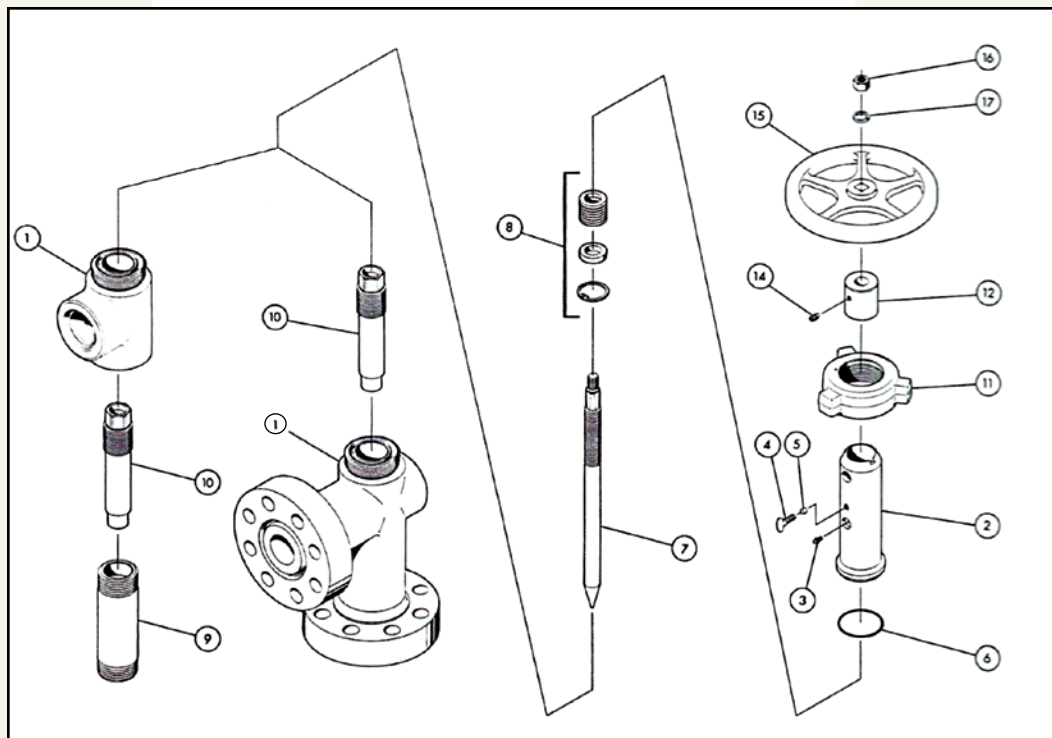


**3 1/8" thru 7 1/16" Flanged x Flanged**  
*API 2,000psi - 10,000psi CWP Adjustable & Positive Chokes*

**2" MAXIMUM ORIFICE AVAILABLE IN LOW ALLOY,  
 STAINLESS STEEL AND SS/TC TRIM**



## 1 13/16" & 2 1/16" Flanged and Threaded API 5,000psi CWP Adjustable & Positive Chokes



### Installation

ViVtrol chokes are shipped with indicator (12) loose. Install choke in system using proper size mating flanges or threaded end connections and appropriate gasket seal rings or thread sealant. Rectangular indicator window may be relocated for more convenient reading by loosening hammer lug nut (11) and rotating bonnet (2) as desired. **CAUTION:** Choke must be in open position and internal system pressure **MUST BE BLED TO 0 PSI** prior to making this adjustment. Retighten hammer lug nut. Turn handwheel (15) clockwise until choke is in closed position. With choke closed, turn indicator (12) until CLSD is positioned directly above rectangular opening in the bonnet (2). Indicator set screw (14) will now be accessible through round window in side of bonnet. Tighten set screw. Indicator is now set.

### Operation

As the choke is opened, numbers will appear in the rectangular window, indicating the equivalent orifice setting of the choke, in 64th of an inch. Once the choke has been set at the desired orifice size, thumbscrew (4) should be tightened to secure that setting. Flow may now be opened through the choke. Should further adjustment be necessary, simply loosen the thumbscrew, turn the handwheel in the direction needed to correct the flow, then re-tighten thumbscrew.

### Maintenance

Routine maintenance on ViVtrol chokes consists of periodic injection (once a month is adequate) of grease through the lube fitting (3). In the event major service or rebuild is required, the stem (7), seat (10), stem packing & bonnet seal (6) may be replaced without removing the choke body from the piping system.

**Caution:** If the choke is to be disassembled while installed in a piping system, it must be isolated from the system pressure and flow. With the choke at an open setting, internal pressure must be bled to 0 PSI.

### Disassembly

Loosen nut (16) and set screw (14). Then, remove handwheel (15), indicator (12), thumbscrew (4) and thread lock protector (5). Loosen lug nut (11) with hammer blows (turn counter-clockwise looking into the handle-end of stem) and remove nut & bonnet (2), stem (7), and packing (8) as an assembly. To disassemble the stem from this assembly, screw the bonnet off the stem's square end. When the threads become disengaged, pull the stem & bonnet apart. Remove stem packing retainer from the bonnet and pry out the steel junk ring and packing rings with a screwdriver (be careful not to damage stuffing box bore in bonnet). Finally, remove seat (10) from the body using a common 3/4" orifice choke seat wrench. Clean & inspect bonnet seal (6) and all other components for wear and corrosion. Discard and replace all questionable parts.

### Re-Assembly

Assemble the stem/bonnet/packing sub-assembly by placing the seal rings (lips toward point of stem) and the steel packing junk ring on the stem. Note: 1" orifice chokes require that the packing and junk ring be installed from the threaded end of the stem. Use of grease on the stem will facilitate moving these parts over the threads to their proper location, just behind the point of the stem. Take care that the packing is installed with the junk ring closest to the point of the stem followed by the seal rings. Screw the bonnet and stem together and seat the packing/junk ring in the stuffing box, exposing the retainer ring in groove. Reassemble other components in reverse order of assembly. After assembly is complete, inject several pumps of grease through lube fitting, and re-calibrate indicator per the Installation and Operations Instructions.

## Replacement Parts

ViNtrol, Inc., manufactures a complete line of replacement parts for all of our chokes. Available replacement parts include:

## Individual Parts

- Seats (Item 10)
- Stems (Item 7)
- Bonnets (Item 6)
- Blanking Caps
- Cage Nipples (Item 9)
- Hammer Lug Nuts (Item 11)
- Packing Assemblies (Item 8)
- Handwheel (Item 15)
- Body (Item 1)

## Bonnet Assemblies Include:

- Bonnet
- Stem
- Indicator
- Handwheel
- Seals & Fittings
- Lug Nut (Optional)

## Adaption Kits Include:

*(For converting adjustable chokes to positive)*

- Blanking Cap
- Retainer
- Seal
- Lug Nut
- Flow Bean (Optional)

## Warranty

ViNtrol, Inc., products are guaranteed against defects of material workmanship for one (1) year from date of invoice, providing such products are used normally and within the service and pressure range to which they were manufactured. Claims for breach of the warranty shall be limited to replacement, free of charge, FOB Oklahoma City, OK, of any part or product that proves defective in material or workmanship, upon written notice of such defect given in thirty (30) days and return of such item to ViNtrol, Inc., Oklahoma City, OK. Costs of labor, freight, drayage, or other similar charges shall be at the customer's expense.

This warranty is limited in extent to the warranty, if any, which the user receives from the manufacturers of any component parts. All other warranties or liabilities expressed or implied, oral or statutory, including any warranty of merchantability or fitness for a particular purpose are expressly denied. In no event shall ViNtrol, Inc., its agents or employees be liable for injury or damage to any person or property whatsoever or for any special, indirect, secondary, or consequential damage of any nature however arising.

## Orders Policy

All orders are subject to acceptance by ViNtrol, Inc., home office. Prices are subject to change without notice and any errors in published prices are subject to correction. No materials may be returned for credit without written authorization from ViNtrol. Credit will not be issued for materials after one (1) year from date of purchase. ViNtrol reserves the right to deduct reconditioning and handling charges when issuing credit for returned materials. Products of special design, not conforming to our standard line, will not be accepted for credit.

## **ViVtrol, Inc.**

5325 SW 36th Street  
Oklahoma City, OK 73179  
Toll Free: 1-866-345-8298  
Phone: 405-261-0770  
Fax: 405-261-0774  
Website: [www.vintrol.com](http://www.vintrol.com)