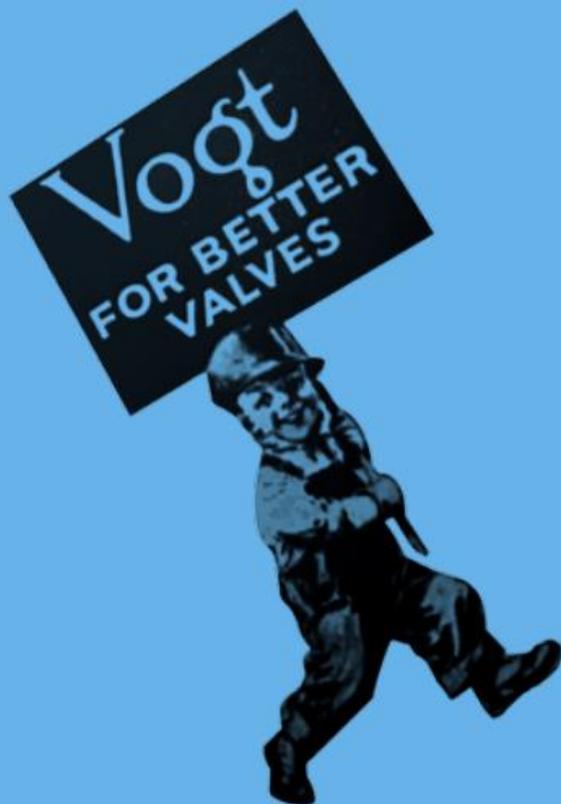


**Voegt**



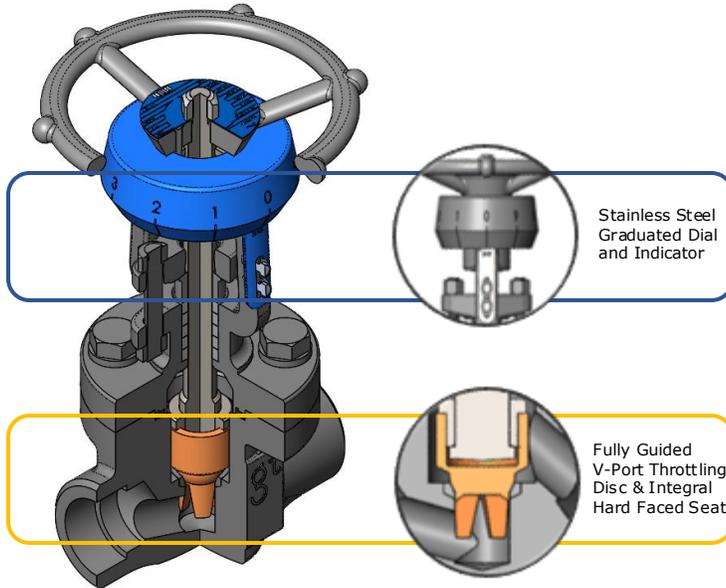
# Flow Control Valves

Series  
**12443**  
**15443**  
**22641**



# Forged Steel Flow Control Valves

- *Accurate Flow Regulation*
- *Positive Shutoff*



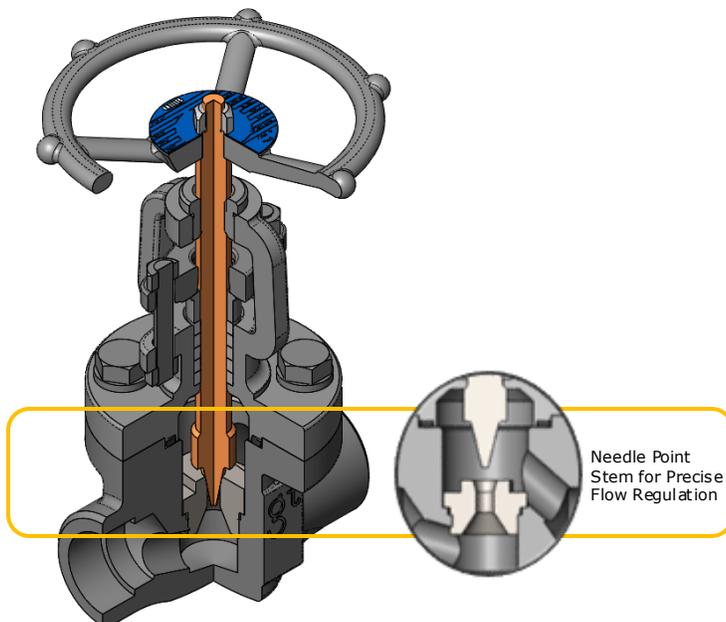
Vogt Valves **12443** V-Port valve is particularly suited for “Continuous Blowdown” applications in steam systems and power plants and “Speed Control” applications in hydraulic systems. The design of the valve ensures positive flow regulation while still providing the shutoff capability of a globe valve.

The V-Port flow control valves have specially designed discs for combination shutoff and throttling service. The shutoff and throttling surfaces are completely removed from each other in such a manner to ensure that consistent flow rates are achieved during operation and that the shutoff seating surface is not subjected to the high velocities that occur at the throttling surface.

The discs are designed with an extended cylinder, which has V-shaped slots. As the disc is raised, the flow area at the V-shaped slots is increased, achieving regulation. The extended V-Port disc legs are fully guided in the valve body during full lift, ensuring minimum vibration of the disc.

Flow area generation at the disc throttling and seating surfaces are controlled to ensure that a linear flow characteristic is achieved. Flow is directly proportional to the valve lift for a constant pressure drop. A stainless-steel dial and indicator permit the operator to accurately regulate and duplicate the flow to a desired volume.

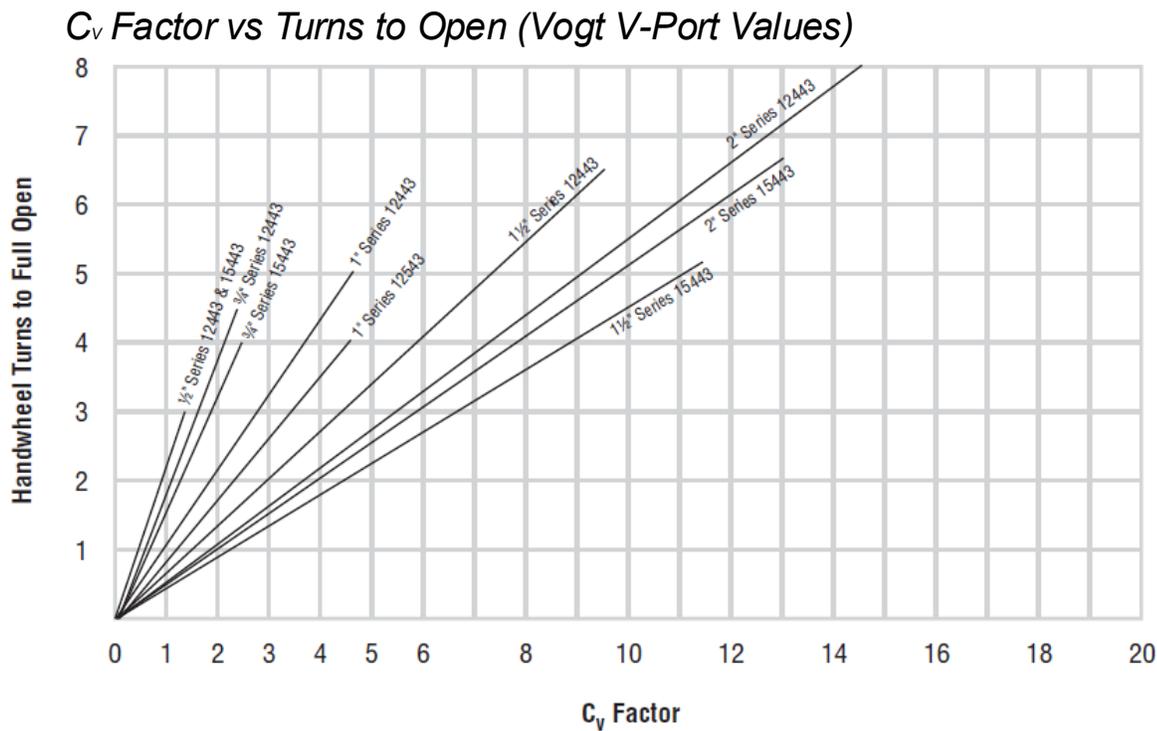
*Serving Worldwide Applications in Steam, Boilers, Power, Refining and Related Industries*



Vogt’s **22461** Needle-point Stem valve is specifically designed for those applications requiring flow regulation in the extreme low CV range. A linear flow characteristic is not achieved with this valve design but repeatability and close regulation is assured. The solid stem design assures that the flow geometry is maintained at any valve setting and duplication can be achieved even at high pressure drops. This valve can be provided with a dial and indicator if required.



**Flow Regulation:** Flow area generation at the disc throttling and seating surfaces are controlled to ensure that a linear flow characteristic is achieved. Flow is directly proportional to the valve lift for a constant pressure drop. A stainless-steel dial and indicator permit the operator to accurately regulate and duplicate the flow to a desired volume.



**NOTE:**  $C_v$  Factors at intermediate-to-full opening range, shown in the accompanying graph, are valid for all liquids having viscosity near that of water at 60°F and specific gravity of 1.

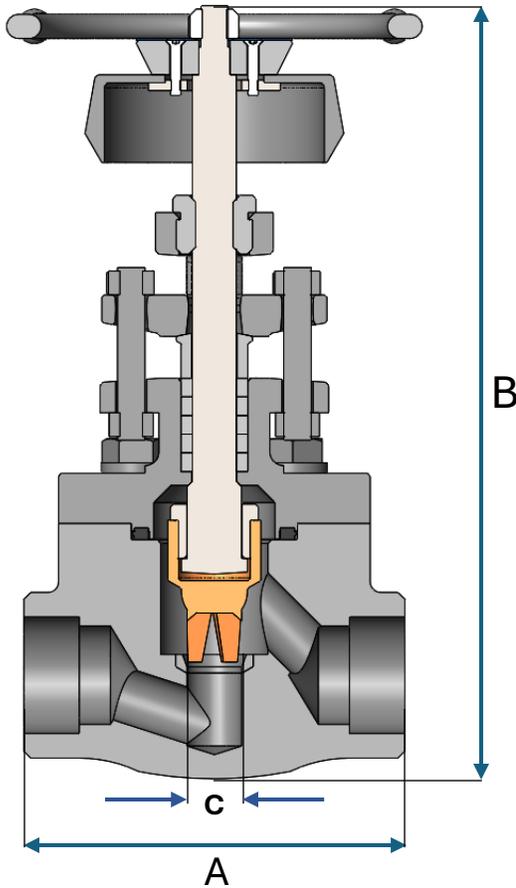
Table 1: Pressure/Temperature Ratings

| Service Temperature (F°)             | -20 to 100 | 200  | 300  | 400  | 500  | 600  | 650  | 700  | 750  | 800  | 850  | 900  | 950 | 1000 |
|--------------------------------------|------------|------|------|------|------|------|------|------|------|------|------|------|-----|------|
| <b>Class 800</b>                     |            |      |      |      |      |      |      |      |      |      |      |      |     |      |
| Carbon Steel A105 <sup>(1)</sup> (2) | 1975       | 1810 | 1745 | 1690 | 1610 | 1515 | 1465 | 1415 | 1350 | 1100 | 850  | 615  | 365 | 225  |
| <b>Class 1500</b>                    |            |      |      |      |      |      |      |      |      |      |      |      |     |      |
| Carbon Steel A105 <sup>(1)</sup> (2) | 3705       | 3395 | 3270 | 3170 | 3015 | 2840 | 2745 | 2655 | 2535 | 2055 | 1595 | 1150 | 685 | 430  |

<sup>(1)</sup> Ratings are in accordance with procedures in ASME B16.34, Standard Class.

<sup>(2)</sup> Permissible but not recommended for prolonged use above 800°F.

Series 12443: Class 800  
Series 15443: Class 1500



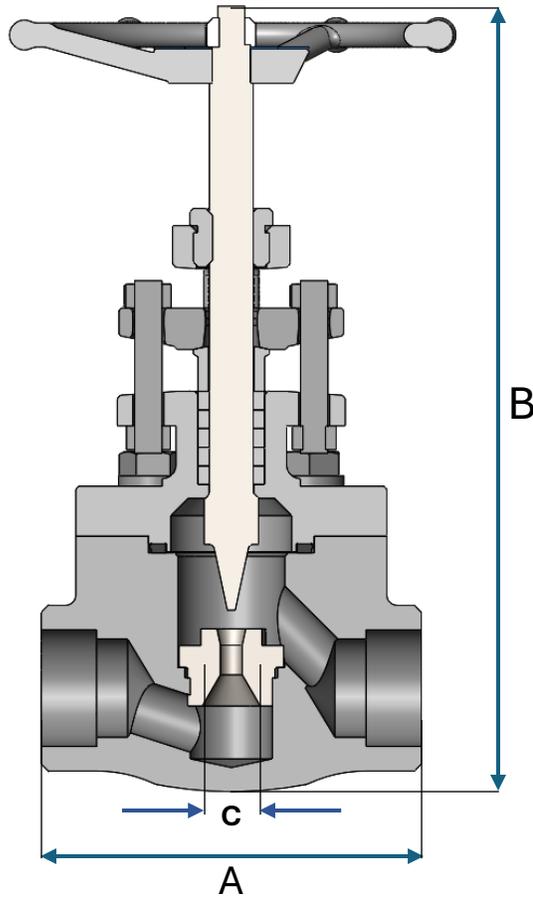
**KEY FEATURES:**

- Loose V-Port Disc
- Stainless Steel Dial and Indicator
- Meets API602 & ASME B16.34
- API 624 Low Fugitive Emission Packing
- Round Bolted Bonnet
- Fully Contained Spiral-Wound Gasket
- Outside Screw & Yoke,
- Bolted Gland
- Integral Hard-Faced Seat

| Pressure Class               | Series Number |             | Material          |                                 | Valve Size | Weight (lb.) | A                | B                          | C                | Cv Factor | Turn to Full Open (approx.) |
|------------------------------|---------------|-------------|-------------------|---------------------------------|------------|--------------|------------------|----------------------------|------------------|-----------|-----------------------------|
|                              | Threaded      | Socket Weld | Body              | Trim                            |            |              | End to End (in.) | Center to Top (open) (in.) | Seat Diam. (in.) |           |                             |
| Class 800<br>1975 psi @100F  | 12443         | SW12443     | Carbon Steel A105 | 13%Cr. Integral Hard Faced Seat | 1/2        | 5.14         | 3.75             | 6.81                       | 0.38             | 1.46      | 3                           |
|                              |               |             |                   |                                 | 3/4        | 5.39         | 4.00             | 6.81                       | 0.44             | 2.38      | 4 1/2                       |
|                              |               |             |                   |                                 | 1          | 9.5          | 4.62             | 8.44                       | 0.62             | 4.54      | 5                           |
|                              |               |             |                   |                                 | 1.1/2      | 19           | 6.25             | 10.38                      | 0.94             | 9.65      | 6 1/2                       |
|                              |               |             |                   |                                 | 2          | 31.4         | 7.75             | 10.88                      | 1.19             | 14.6      | 8                           |
| Class 1500<br>3075 psi @100F | 15443         | SW15443     | Carbon Steel A105 | 13%Cr. Integral Hard Faced Seat | 1/2        | 10.8         | 4.50             | 7.88                       | 0.44             | 1.46      | 3                           |
|                              |               |             |                   |                                 | 3/4        | 10.4         | 4.50             | 7.88                       | 0.44             | 2.38      | 4 1/2                       |
|                              |               |             |                   |                                 | 1          | 21.5         | 6.25             | 10.12                      | 0.62             | 4.54      | 5                           |
|                              |               |             |                   |                                 | 1.1/2      | 35.5         | 7.75             | 11.00                      | 0.94             | 11.50     | 5.1/4                       |
|                              |               |             |                   |                                 | 2          | 62.8         | 9.00             | 13.31                      | 1.03             | 13.00     | 6.1/2                       |

Cv factors are for Vogt standard 4 V-port disc.  
Special flow control valves having Cv factors less than 1 are available upon request

## Series 22461: Class 800



### KEY FEATURES:

- Needle-Point Stem
- Meets API602 & ASME B16.34
- API 624 Low Fugitive Emission Packing
- Round Bolted Bonnet
- Fully Contained Spiral-Wound Gasket
- Outside Screw & Yoke,
- Bolted Gland
- Renewable Hard-Faced Seat

| Pressure Class              | Series Number |               | Material          |                           | Valve Size | Weight (lb.) | A                | B                          | C                | Cv Factor | Turn to Full Open (approx.) |
|-----------------------------|---------------|---------------|-------------------|---------------------------|------------|--------------|------------------|----------------------------|------------------|-----------|-----------------------------|
|                             | Threaded      | Socket Weld   | Body              | Trim                      |            |              | End to End (in.) | Center To Top (open) (in.) | Seat Diam. (in.) |           |                             |
| Class 800<br>1975 psi @100F |               | 22416 SW22461 | Carbon Steel A105 | 13%Cr.<br>Hard Faced Seat | 1/4        | 4.80         | 3.75             | 6.69                       | 0.19             | 0.56      | 3 1/2                       |
|                             |               |               |                   |                           | 3/8        | 4.59         | 3.75             | 6.69                       | 0.19             | 0.55      | 3 1/2                       |
|                             |               |               |                   |                           | 1/2        | 5.00         | 3.75             | 6.69                       | 0.19             | 0.68      | 3 1/2                       |
|                             |               |               |                   |                           | 3/4        | 4.85         | 4.00             | 6.69                       | 0.19             | 0.99      | 3 1/2                       |
|                             |               |               |                   |                           | 1          | 8.63         | 4.62             | 8.62                       | 0.25             | 1.50      | 5 1/2                       |



## Standard Bill of Material

**12443 / 15443**

**22461**

|                   |                             |                                   |
|-------------------|-----------------------------|-----------------------------------|
| Dial Indicator    | Stainless Steel             |                                   |
| Indicator Scale   | Stainless Steel             |                                   |
| Handwheel Nut     | Zi Pl. Carbon Steel         | Zi Pl. Carbon Steel               |
| Nameplate         | Aluminum                    | Aluminum                          |
| Handwheel         | Carbon Steel                | Carbon Steel                      |
| Yoke Nut          | ASTM A582 T416              | ASTM A582 T416                    |
| Gland Flange Nut  | ASTM A194 2H                | ASTM A194 2H                      |
| Gland Flange      | ASTM A105                   | ASTM A105                         |
| Gland Flange Stud | ASTM A193 B7                | ASTM A193 B7                      |
| Packing Gland     | ASTM A479 T316              | ASTM A479 T316                    |
| Packing           | Graphite (API622)           | Graphite (API622)                 |
| Stem              | ASTM A276 T410              | ASTM A276 T410                    |
| Disc              | ASTM A479 T416              | Integral to Stem                  |
| Disc nut          | ASTM A276 T410              |                                   |
| Seat              | Integral<br>CoCr Hard Faced | ASTM A276 T410<br>CoCr Hard Faced |
| Gasket            | Spiral Wound 316/Graphite   | Spiral Wound 316/Graphite         |
| Body Bolting      | ASTM A193 B7                | ASTM A193 B7                      |
| Body              | ASTM A105N                  | ASTM A105N                        |
| Bonnet            | ASTM A105N                  | ASTM A105N                        |



# Our Company



In the late 1890s, Vogt pioneered the early development of ammonia absorption refrigeration systems that made artificial ice. This business, plus Vogt's fledgling boiler business, created an internal need for quality valves that initiated Vogt's early entry into the valve manufacturing business.

The early reputation of Vogt's quality valves and rapidly growing petroleum processing industry created an outside demand that would firmly establish Vogt in the mass production of high-quality forged steel valves.

For over 135 years, Vogt has been a leader in producing forged steel valves including gate, globe, angle, and check types.

Since 2017 Vogt is as part of OMB Valves group with a modern manufacturing plant in Stafford, TX, and Rescaldina, Italy. These facilities are equipped to meet the rigorous demands of various industries, ensuring that Vogt's products maintain their reputation for quality and reliability. Vogt product are available through a global distributor network

## Vogt and FLOW CONTROL

A flow control valve is used to regulate the flow rate and pressure of fluids in a system. By adjusting its setting, the valve controls the velocity and volume of the fluid passing through it. This ensures optimal performance, efficiency, and safety within hydraulic, pneumatic, or fluid systems.

Vogt has supplied FC valves for more than 50 years in a wide range of application and industry sector.

Vogt Valves has established industry leadership in the design and manufacture of its products. When properly selected, this Vogt product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Vogt products should be aware that Vogt products might be used in numerous applications under a wide variety of industrial service conditions. Although Vogt can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Vogt products. The purchaser/user should read and understand the Installation Operation Maintenance (IOM) instructions included with the product and train its employees and contractors in the safe use of Vogt products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product.

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