



## DSI-WG Series

### Carbon Steel, ANSI Flange, Wedge Gate Valves



DSI-WG Wedge Gate Valves from Assured Automation are designed and manufactured to ensure leakage of less than 100 ppm (parts per million) of volatile organic compounds (VOC). These valves have standard features that are considered special options from most manufacturers. That is the reason that these valves are found on the AML (approved manufacturer list) of petroleum refineries, chemical processing plants, and power generation plants all over the world.

#### FEATURES

- Low Emission: < 100 ppm
- Stem straightness and roundness
- Stem surface finish to max. 32 Ra
- Stuffing box surface finish to max. 125 Ra
- Stuffing box and gland cylindricity
- Self centering gland design
- Gland packing: Die-formed graphite rings with braided graphite top and bottom rings
- Corrugated SS and graphite bonnet gaskets

#### TYPICAL APPLICATIONS

- Petroleum refining
- Chemical processing
- Power generation

#### END CONNECTIONS

- Class 150:** 2" to 36"
- Class 300:** 2" to 36"
- Class 600:** 2" to 24"
- Class 900:** 3" to 12"
- Class 1500:** 2" to 12"

#### PRESSURE RANGE

- Class 150:** 285 PSIG (up to 100°F)
- Class 300:** 740 PSIG (up to 100°F)
- Class 600:** 1,480 PSIG (up to 100°F)
- Class 900:** 2,220 PSIG (up to 100°F)
- Class 1500:** 3,705 PSIG (up to 100°F)

[See Pressure/Temperature curve on page 2](#)

#### TEMPERATURE RANGE

-20°F to 1000°F  
*not recommended for prolonged use above 800°F*

[See Pressure/Temperature curve on page 2](#)

#### MATERIALS

- Body & Bonnet:** Carbon Steel (A216 WCB)
- Wedge:** A216 WCB / WCB13Cr
- Seat Rings:** A105 / HF (Sellite® 6 or equiv.)
- Body Gasket:** 316 SS / Graphite GHE
- Stem:** AISI 410

[See page 3 for complete materials details](#)



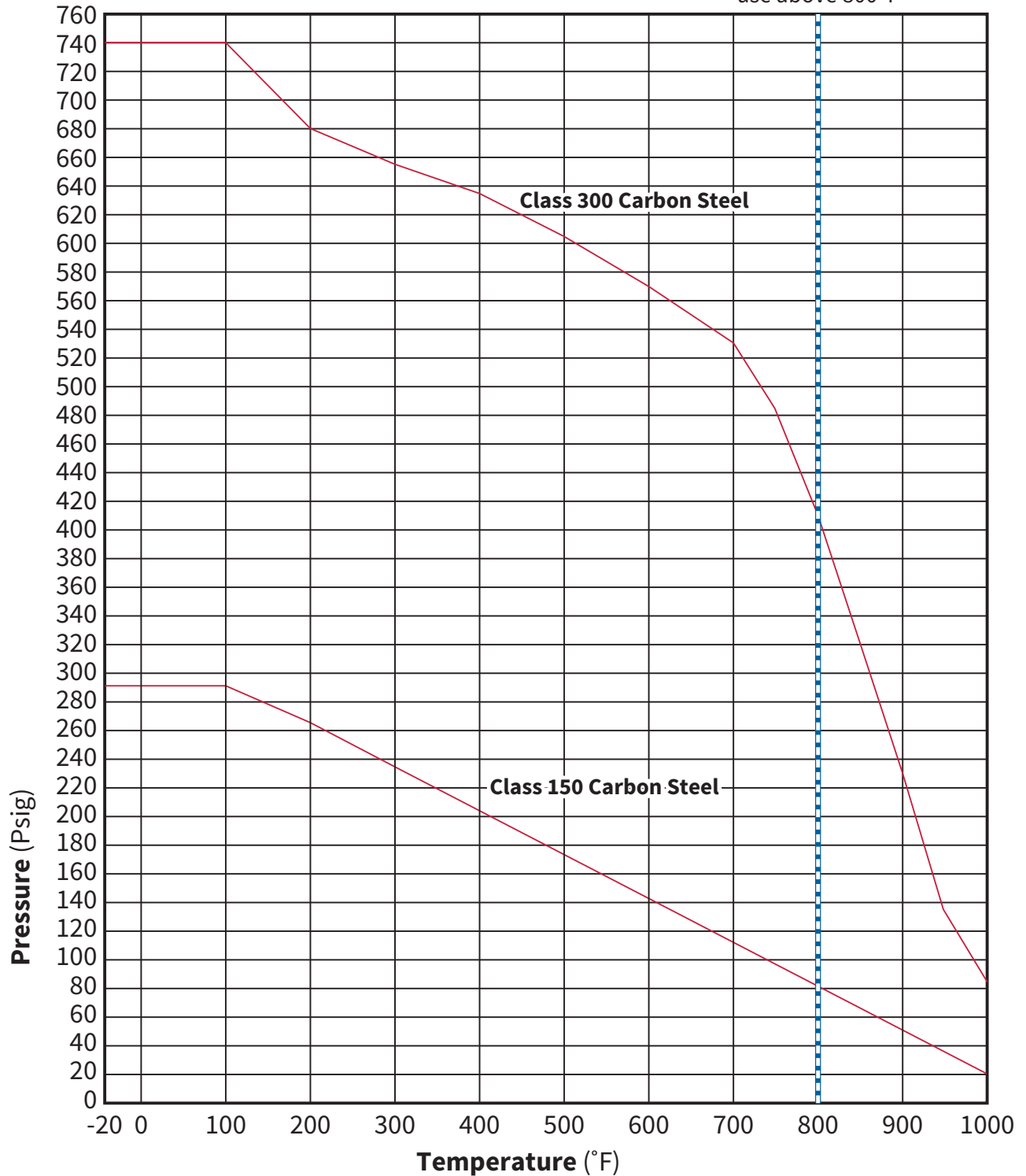
## DSI-WG Series



## Carbon Steel, ANSI Flange Wedge Gate Valves

### PRESSURE vs. TEMPERATURE

Not for prolonged use above 800°F



Call for Class 600, 900, 1500 Pressure/Temperature Curves



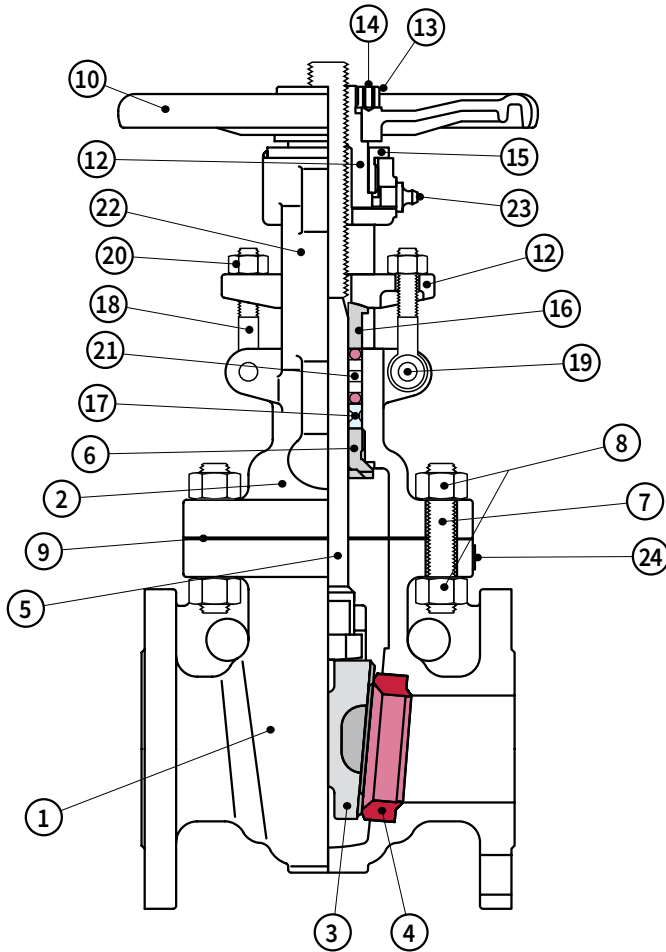
## DSI-WG Series



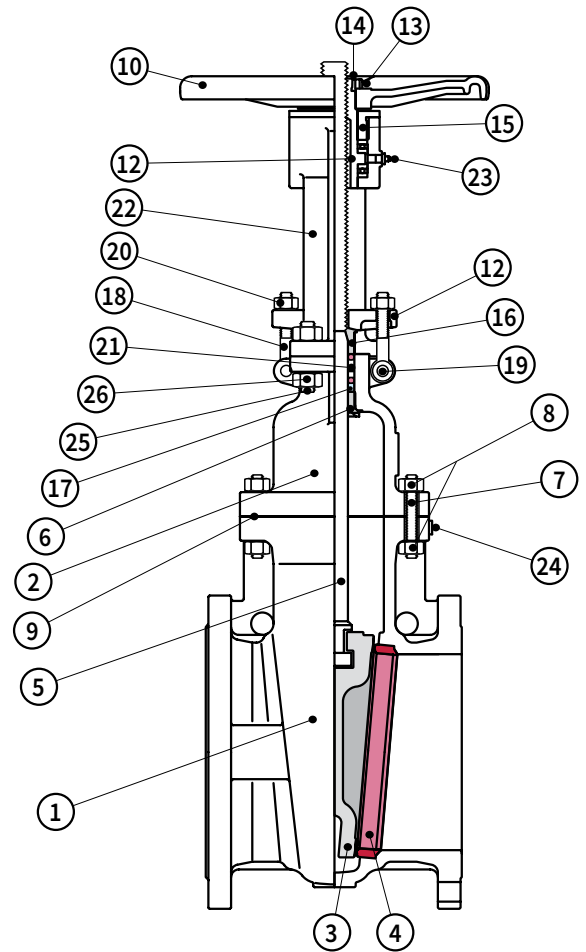
## Carbon Steel, ANSI Flange Wedge Gate Valves

### MATERIALS OF CONSTRUCTION (Carbon Steel - Call for Stainless Steel)

#### Sizes 2" to 8"



#### Sizes 10" and Larger



| Item | Name                   | Material                             |
|------|------------------------|--------------------------------------|
| 1    | Body                   | A216 WCB                             |
| 2    | Bonnet                 | A216 WCB                             |
| 3    | Flex Wedge             | A216 WCB / WCB13Cr                   |
| 4    | Seat Rings             | A105 / HF (Sellite® 6 or equivalent) |
| 5    | Stem                   | AISI 410                             |
| 6    | Back Seat              | AISI 410                             |
| 7    | Bonnet Studs           | A193 B7                              |
| 8    | Bonnet Nuts            | A193 2H                              |
| 9    | Body/Bonnet Gasket     | 316 SS / Graphite GHE                |
| 10   | Handwheel              | Carbon Steel / Ductile Iron          |
| 11   | Gland Flange           | A216 WCB / A105 or A283D             |
| 12   | Yoke Sleeve / Stem Nut | A439 D2                              |
| 13   | Handwheel Nut          | Steel                                |

| Item | Name                    | Material       |
|------|-------------------------|----------------|
| 14   | Set Screw               | Steel          |
| 15   | Yoke Cap / Sleeve Gland | Steel          |
| 16   | Gland                   | A276 410       |
| 17   | Spacer                  | A276 410       |
| 18   | Eyebolts                | A193 B7        |
| 19   | Eyebolt Pins            | A36            |
| 20   | Eyebolt Nuts            | A194 2H        |
| 21   | Stem Packing            | Graphite Stack |
| 22   | Yoke                    | A216 WCB       |
| 23   | Grease Fitting          | Steel          |
| 24   | Nameplate               | AISI 304       |
| 25   | Yoke Studs              | A193 B7        |
| 26   | Yoke Nuts               | A193 2H        |

*Call for stainless steel valve materials*

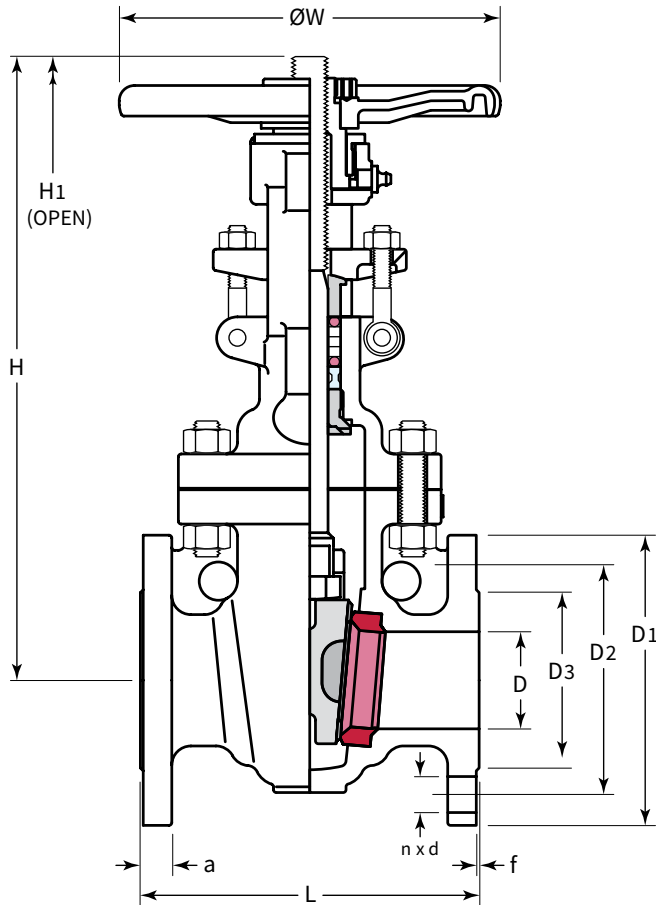


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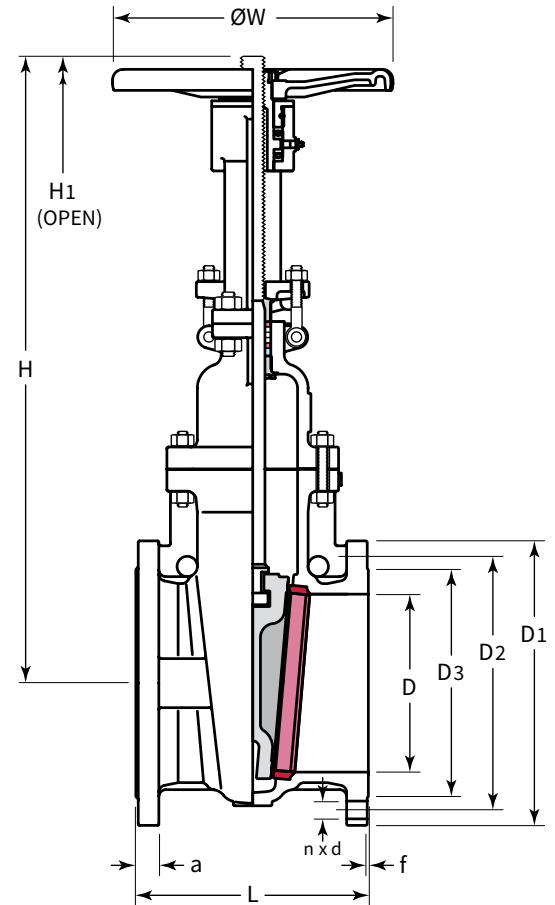


## Carbon Steel, ANSI Flange Wedge Gate Valves

### DIMENSIONS (Class 150 - Call for other ANSI Classes) Sizes 2" to 8"



### Sizes 10" and Larger



| Size   | H     | H1    | ØW    | L     | a    | n  | Ød   | ØD    | ØD1   | ØD2   | ØD3   | f    | Weight (lbs) | Cv (gpm) |
|--------|-------|-------|-------|-------|------|----|------|-------|-------|-------|-------|------|--------------|----------|
| 2"     | 11.56 | 13.89 | 7.87  | 7.00  | 0.56 | 4  | 0.75 | 2.00  | 6.00  | 4.75  | 3.62  | 0.06 | 48.4         | 298.7    |
| 2 1/2" | 13.70 | 16.54 | 7.87  | 7.50  | 0.62 | 4  | 0.75 | 2.50  | 7.00  | 5.50  | 4.12  | 0.06 | 57.2         | 466.7    |
| 3"     | 15.14 | 18.50 | 7.87  | 8.00  | 0.69 | 4  | 0.75 | 3.00  | 7.50  | 6.00  | 5.00  | 0.06 | 77.0         | 694.1    |
| 4"     | 17.48 | 21.76 | 9.84  | 9.00  | 0.88 | 8  | 0.75 | 4.00  | 9.00  | 7.50  | 6.19  | 0.06 | 114.4        | 1,234.0  |
| 6"     | 22.80 | 29.06 | 9.84  | 10.50 | 0.94 | 8  | 0.87 | 6.00  | 11.00 | 9.50  | 8.50  | 0.06 | 198.0        | 2,873.9  |
| 8"     | 28.76 | 36.88 | 13.78 | 11.50 | 1.06 | 8  | 0.87 | 8.00  | 13.50 | 11.75 | 10.62 | 0.06 | 288.2        | 5,109.1  |
| 10"    | 34.67 | 45.00 | 17.72 | 13.00 | 1.12 | 12 | 1.00 | 10.00 | 16.00 | 14.25 | 12.75 | 0.06 | 440.0        | 8,622.6  |
| 12"    | 40.71 | 52.99 | 17.72 | 14.00 | 1.19 | 12 | 1.00 | 12.00 | 19.00 | 17.00 | 15.00 | 0.06 | 678.7        | 12,416.5 |
| 14"    | 47.80 | 58.54 | 17.72 | 15.00 | 1.31 | 12 | 1.12 | 13.25 | 21.00 | 18.75 | 16.25 | 0.06 | 895.4        | 17,651.7 |
| 16"    | 54.61 | 66.89 | 19.69 | 16.00 | 1.38 | 16 | 1.12 | 15.25 | 23.50 | 21.25 | 18.50 | 0.06 | 1,245.2      | 23,055.3 |
| 18"    | 61.00 | 74.80 | 22.05 | 17.00 | 1.50 | 16 | 1.25 | 17.25 | 25.00 | 22.75 | 21.00 | 0.06 | 1,595.0      | 30,603.6 |
| 20"    | 66.06 | 83.46 | 27.95 | 18.00 | 1.62 | 20 | 1.25 | 19.25 | 27.50 | 25.00 | 23.00 | 0.06 | 2,059.0      | 37,782.2 |
| 24"    | 78.25 | 98.50 | 31.50 | 20.00 | 1.81 | 20 | 1.25 | 23.25 | 32.00 | 29.50 | 27.25 | 0.06 | 3,020.6      | 57,349.4 |

Call for larger sizes and for ANSI Class 300, 600, 900, 1500 valves



## DSI-WG Series



## Carbon Steel, ANSI Flange Wedge Gate Valves

### ORDERING INFORMATION

## DSI-WG - 200 - CS - RF150 - T8 - M

| Series | Size | Body Material | Connection Type | Trim Material | Actuator |
|--------|------|---------------|-----------------|---------------|----------|
|--------|------|---------------|-----------------|---------------|----------|

### VALVE BODY

Size: \_\_\_\_\_  
**DSI-WG** = DSI Wedge Gate Valve

Size: \_\_\_\_\_

|                     |                   |                   |                   |
|---------------------|-------------------|-------------------|-------------------|
| <b>200</b> = 2"     | <b>600</b> = 6"   | <b>1400</b> = 14" | <b>2400</b> = 24" |
| <b>250</b> = 2 1/2" | <b>800</b> = 8"   | <b>1600</b> = 16" |                   |
| <b>300</b> = 3"     | <b>1000</b> = 10" | <b>1800</b> = 18" |                   |
| <b>400</b> = 4"     | <b>1200</b> = 12" | <b>2000</b> = 20" |                   |

*(Larger sizes are available - Call for more information)*

Body Material: \_\_\_\_\_  
**CS** = Carbon steel (A216 WCB)  
*Call for Stainless Steel*

Connection Type: \_\_\_\_\_

- RF150** = ANSI Class 150 Raised face flange
- RF300** = ANSI Class 300 Raised face flange
- RF600** = ANSI Class 600 Raised face flange
- RF900** = ANSI Class 900 Raised face flange
- RF1500** = ANSI Class 1500 Raised face flange

Trim Material: \_\_\_\_\_  
**T8** = API 600 Trim 8 (410 Hard Faced [Stellite 6 or equivalent])  
*(many other trim types are available - Call for more information)*

### ACTUATOR

Manual Operators \_\_\_\_\_

Type:  
**M** = Basic manual hand wheel on stem  
**G** = Geared hand wheel - 90 degree bevel gear to stem

