



DAVINCI TECHNICAL DATA GUIDE

# METAL SEAT GATE VALVES

## NON-RISING STEM F4/F5

Ref. 122A-VI / PN 10-16

CE



### Application

Drinking water networks  
Bulk water storage  
Process water systems  
Pump stations  
Sewage water networks  
Irrigation projects

### Approvals/Standards

Design: DIN 3352  
Manufacture according to: EN 1074-2./GB/T12232-1989  
Face to Face: EN 558-1 Series 14 (F4), BS5163  
Mounting between flanges: PN10/16 EN 1092-2, ISO 7005-2.  
Pressure Tests acc. to EN 12266-1 Rate C.  
Pressure Tests: Body: 1,5 x PN. Seat: 1,1 x PN  
EU directive 2014/68/EU:  
Products excluded, article 1, § 2b up to DN300.



### Certifications

CE

### Range

DN50-300, PN10-16



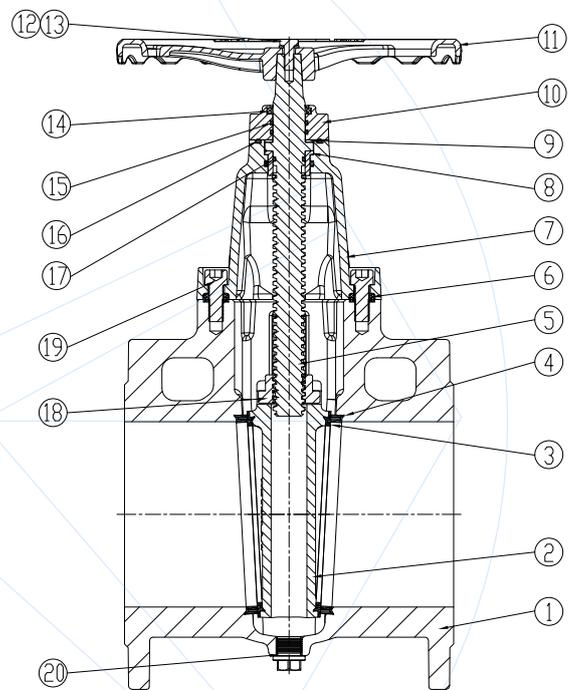
## GENERAL CHARACTERISTICS

Range from DN50 up to DN300  
 Full bore.  
 Minimum head loss.  
 Repackable under pipeline pressure.  
 Low torque values.

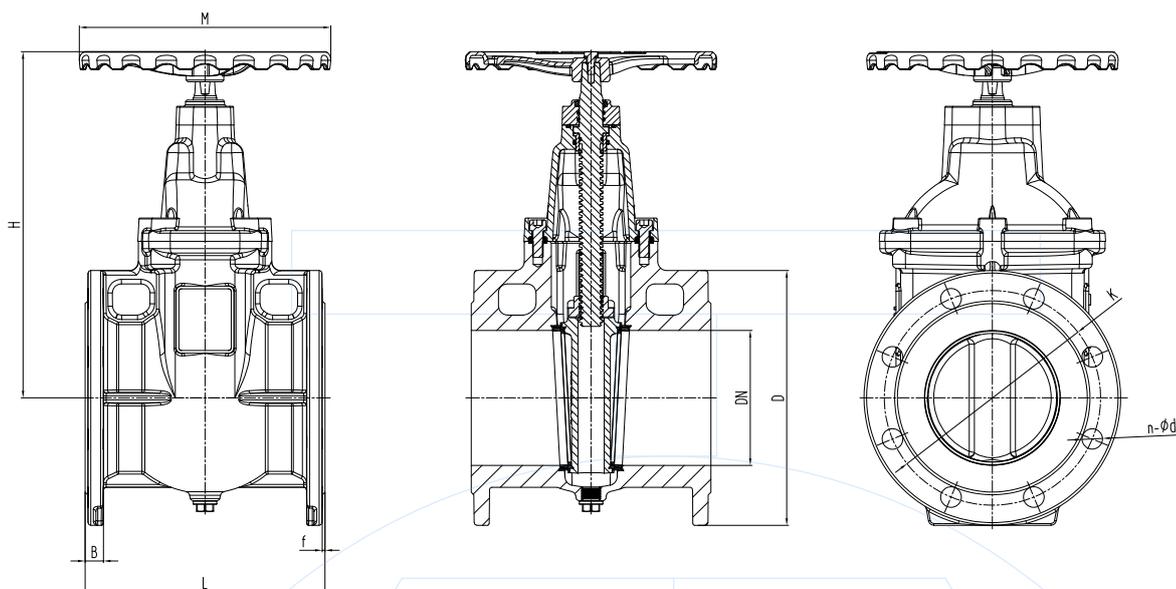
## WORKING CONDITIONS

Pressure ratings PN10 and PN16  
 Working temperature: -10°C + 80°C  
 Suitable media:  
 - Abrasive fluids.  
 - Corrosive fluids.  
 - Slurry  
 Suitable for higher temperatures with  
 PTFE gaskets <250°C

| N° | ITEM               | MATERIAL        | STANDARD   |
|----|--------------------|-----------------|------------|
| 1  | Body               | GJS500-7        | DIN 1693   |
| 2  | Gate               | GJS500-7        | DIN 1693   |
| 3  | Gate seal sleeve   | BRASS CuZn39Pb1 | EN 12167   |
| 4  | Body seal sleeve   | BRASS CuZn39Pb1 | EN 12167   |
| 5  | Stem               | AISI 420        | ASTM A959  |
| 6  | Gasket body-bonnet | NBR             | ISO 4633   |
| 7  | Bonnet             | GJS500-7        | DIN 1693   |
| 8  | Thrust Washer      | BRASS CuZn39Pb1 | EN 12167   |
| 9  | Friction pads      | BRASS CuZn39Pb1 | EN 12167   |
| 10 | Gland              | GJS500-7        | DIN 1693   |
| 11 | Handwheel          | GJS500-7        | DIN 1693   |
| 12 | Bolts              | A2-70           | ASTM A959  |
| 13 | Flat washer        | A2-70           | ASTM A959  |
| 14 | Dust cover         | NBR             | ISO 4633   |
| 15 | Stem O-rings       | NBR             | ISO 4633   |
| 16 | Stem O-rings       | NBR             | ISO 4633   |
| 17 | Stem O-rings       | NBR             | ISO 4633   |
| 18 | Stem nut           | CuZn39Pb1       | EN 12167   |
| 19 | Bolt               | CS8.8           | ASTM A959  |
| 20 | Plug               | A2-70           | ASTM A959  |
|    | RAL 5015 Painting  | Epoxy 250 µm    | DIN 3476-1 |



*Components may be replaced with materials of equivalent or superior grade without prior notice, in accordance with our continuous improvement policy.*



| DN  | L   |        | H   | ØM  | D    |      | K    |      | n-Ød        |      | B    |      | f   | Torque (N·m) | Nº Turns | Weight (kg) |        |
|-----|-----|--------|-----|-----|------|------|------|------|-------------|------|------|------|-----|--------------|----------|-------------|--------|
|     | F4  | BS5163 |     |     | PN10 | PN16 | PN10 | PN16 | PN10        | PN16 | PN10 | PN16 |     |              |          | F4          | BS5163 |
| 50  | 150 | 178    | 210 | 180 | 165  |      | 125  |      | 4-19        |      | 19   | 3    | 40  | 8            | 14       | 14          |        |
| 65  | 170 | 190    | 240 | 200 | 185  |      | 145  |      | 4-19        |      | 19   | 3    | 50  | 9            | 16       | 16          |        |
| 80  | 180 | 203    | 275 | 200 | 200  |      | 160  |      | 8-19        |      | 19   | 3    | 60  | 11           | 19       | 19          |        |
| 100 | 190 | 229    | 320 | 220 | 220  |      | 180  |      | 8-19        |      | 19   | 3    | 80  | 11           | 24       | 24          |        |
| 125 | 200 | 254    | 355 | 254 | 250  |      | 210  |      | 8-19        |      | 19   | 3    | 100 | 14           | 36       | 36          |        |
| 150 | 210 | 267    | 390 | 280 | 285  |      | 240  |      | 8-23        |      | 19   | 3    | 120 | 17           | 42       | 40          |        |
| 200 | 230 | 292    | 490 | 315 | 340  |      | 295  |      | 8-23 12-23  |      | 20   | 3    | 150 | 18           | 66       | 62          |        |
| 250 | 250 | 330    | 585 | 406 | 395  | 405  | 350  | 355  | 12-23 12-28 |      | 22   | 3    | 200 | 22           | 105      | 104         |        |
| 300 | 270 | 356    | 660 | 406 | 445  | 460  | 400  | 410  | 12-23 12-28 |      | 24.5 | 4    | 250 | 26           | 151      | 141         |        |

The designs, materials and technical specifications indicated herein are subject to modification without prior notice, as part of the continuous development of our manufacturing programme, product refinement and technological advancement.

## OPERATING OPTIONS AND OPTIONAL ACCESSORIES

Our engineering team provides customized solutions tailored to each customer's specific project requirements. Our manufacturing plan includes the following operation options for manual gate valves.

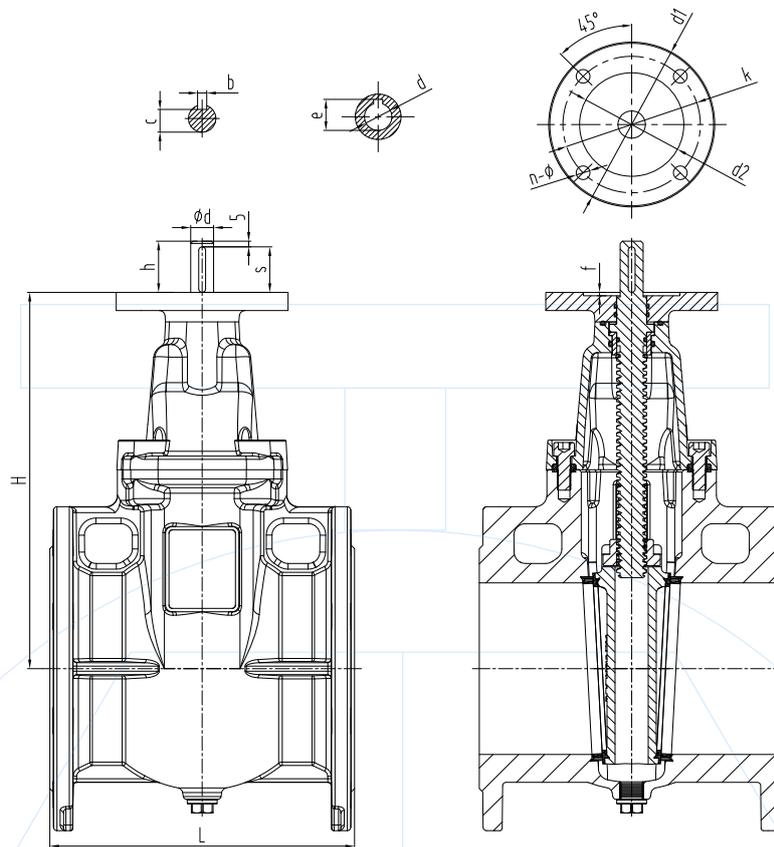
### Standard version:

- Supplied with top cap.

### Optional accessories:

- Handwheel.
- Position indicator
- Extension spindles.
  - Rigid
  - Telescopic





| DN  | L   |        | ISO 5211 | H   | d1  | k   | n-Ø  | d2  | Ød | h  | s  | b | c    | e    | Torque (N-m) | N° Turns |
|-----|-----|--------|----------|-----|-----|-----|------|-----|----|----|----|---|------|------|--------------|----------|
|     | F4  | BS5163 |          |     |     |     |      |     |    |    |    |   |      |      |              |          |
| 50  | 150 | 178    | F10      | 175 | 125 | 102 | 4-12 | 71  | 18 | 45 | 40 | 6 | 14.5 | 20.8 | 40           | 8        |
| 65  | 170 | 190    | F10      | 195 | 125 | 102 | 4-12 | 71  | 20 | 45 | 40 | 6 | 16.5 | 22.8 | 50           | 9        |
| 80  | 180 | 203    | F10      | 220 | 125 | 102 | 4-12 | 71  | 20 | 45 | 40 | 6 | 16.5 | 22.8 | 60           | 11       |
| 100 | 190 | 229    | F10      | 255 | 125 | 102 | 4-12 | 71  | 20 | 45 | 40 | 6 | 16.5 | 22.8 | 80           | 11       |
| 125 | 200 | 254    | F10      | 295 | 125 | 102 | 4-12 | 71  | 20 | 45 | 40 | 6 | 16.5 | 22.8 | 100          | 14       |
| 150 | 210 | 267    | F10      | 330 | 125 | 102 | 4-12 | 71  | 20 | 45 | 40 | 6 | 16.5 | 22.8 | 120          | 17       |
| 200 | 230 | 292    | F14      | 430 | 175 | 140 | 4-18 | 101 | 30 | 65 | 56 | 8 | 26   | 33.3 | 150          | 18       |
| 250 | 250 | 330    | F14      | 520 | 175 | 140 | 4-18 | 101 | 30 | 65 | 56 | 8 | 26   | 33.3 | 200          | 22       |
| 300 | 270 | 356    | F14      | 600 | 175 | 140 | 4-18 | 101 | 30 | 65 | 56 | 8 | 26   | 33.3 | 250          | 26       |

The dimensions for the flanges are the same as the ones for the valve without ISO top flange.

## OPERATING OPTIONS AND OPTIONAL ACCESSORIES

Our engineering team provides customized solutions tailored to each customer's specific project requirements. Our manufacturing plan includes the following operation options for gate valves.

### Standard version:

- Supplied with bare shaft.

### Optional accessories:

- Handwheel.
- Gearbox.
- Electric actuator

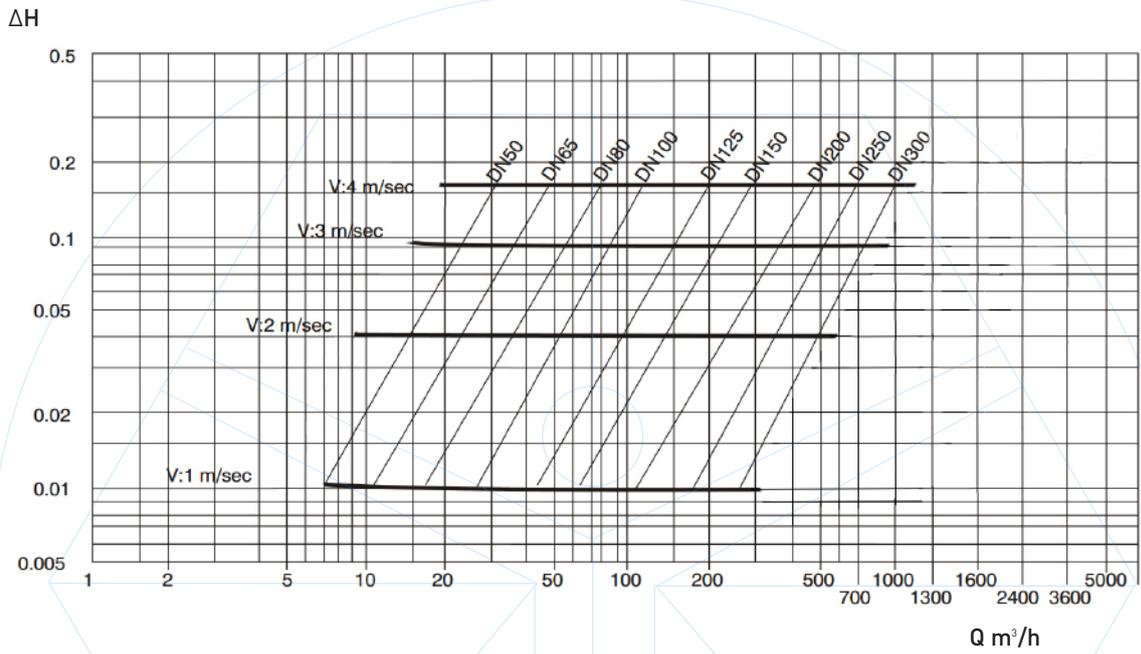




## FLOW CHARACTERISTIC CHART

The Flow Characteristic Chart illustrates the relationship between flow rate and pressure drop across the gate valve under different operating conditions. By reading the diagonal curves, end customer can quickly determine how much pressure loss will occur at a given flow rate for various valve sizes.

DAVINCI VALVES full-bore design allows very low flow resistance and minimal pressure drop when the valve is fully open, ensuring efficient performance in water distribution and industrial piping systems.





CONTACT US

# DAVINCI VALVES ORDER REQUEST

Ref. 122A-VI / PN 10-16



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