



# OS&Y Resilient Seat Gate Valve Fig.133FF

## Product Description

Rapidrop Fig.133FF Valve is a manually operated, outside screw & yoke resilient seat gate valve designed for use in fire protection systems for on/off operation only. The lightweight ductile iron body allows for easier handling and reduced shipping costs. Valves are suitable for both vertical and horizontal installation. Valve components are corrosion resistant or coated with a thermally applied fusion-bonded epoxy. The EPDM encapsulated ductile iron wedge with a compression mechanism is designed to achieve water tight sealing and low torque operation. The stem is pre notched to accommodate OSY2 limit switch.



## Maximum Working Pressure

DN50 - DN300 (2" - 12") 20.7 bar (300 psi)  
DN350 - DN450 (14" - 18") 17.2 bar (250 psi)  
DN500 & DN600 (20" & 24") 13.8 bar (200psi)

## Temperature Range

-10° to 120°C (14°F to 248°F)

## Flange Specification

- ANSI Class 125/150 Flange
- PN16 RF Flange

Face to face according to EN558-1 series 3

## Design Standard

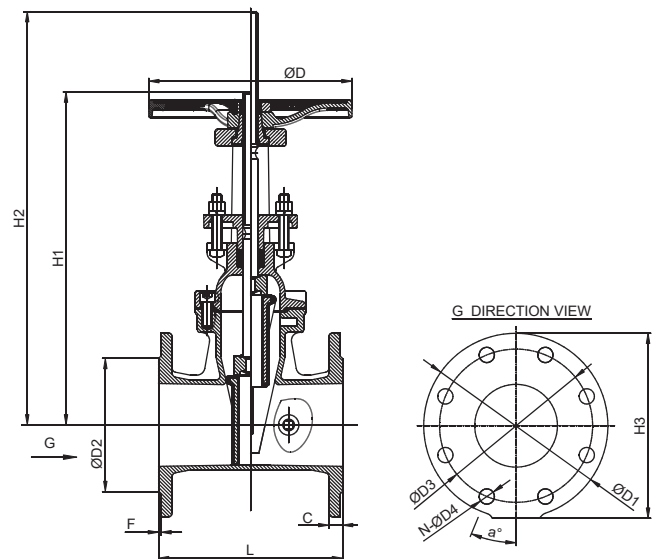
AWWA C515

## Coating

Fusion Bonded Epoxy Coating in accordance with ANSI /AWWA C550

## Approvals

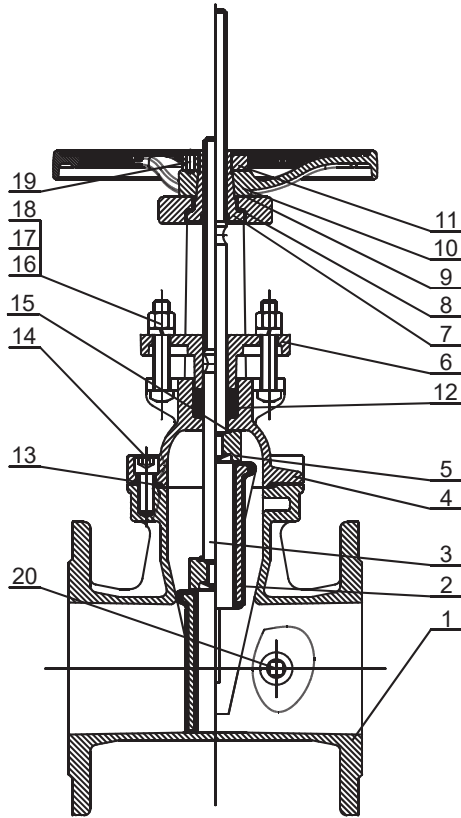
FM Approved  
UL Listed



## Dimensions - DN50 to DN300

| Sizes |        | L   | H1  | H2   | ØD  | ØD1 | C    | ØD2   | F | ØD3   | N  | a°    | ØD4   | H3    | Weight kg | Turns to open |
|-------|--------|-----|-----|------|-----|-----|------|-------|---|-------|----|-------|-------|-------|-----------|---------------|
| mm    | inch   |     |     |      |     |     |      |       |   |       |    |       |       |       |           |               |
| DN50  | 2"     | 178 | 337 | 411  | 183 | 165 | 14.9 | 92.1  | 2 | 120.7 | 4  | 45°   | 19.05 | 170.5 | 18        | 13            |
| DN65  | 2 1/2" | 191 | 337 | 411  | 183 | 180 | 16.5 | 104.8 | 2 | 139.7 | 4  | 45°   | 19.05 | 188   | 19        | 17            |
| DN80  | 3"     | 203 | 376 | 462  | 253 | 190 | 18   | 127   | 2 | 152.4 | 4  | 45°   | 19.05 | 200   | 22        | 17            |
| DN100 | 4"     | 229 | 414 | 514  | 253 | 230 | 22.8 | 157.2 | 2 | 190.5 | 8  | 22.5° | 19.05 | 235   | 27        | 20            |
| DN125 | 5"     | 254 | 497 | 629  | 306 | 255 | 22.8 | 185.7 | 2 | 216   | 8  | 22.5° | 22.2  | 259.5 | 40        | 25            |
| DN150 | 6"     | 267 | 561 | 709  | 306 | 280 | 24.4 | 215.9 | 2 | 241.3 | 8  | 22.5° | 22.2  | 288   | 47        | 30            |
| DN200 | 8"     | 292 | 714 | 922  | 355 | 345 | 27.6 | 269.9 | 2 | 299   | 8  | 22.5° | 22.2  | 350.5 | 72        | 34            |
| DN250 | 10"    | 330 | 856 | 1116 | 445 | 405 | 29.2 | 323.8 | 2 | 362   | 12 | 15°   | 25.4  | 410.5 | 111       | 42            |
| DN300 | 12"    | 356 | 993 | 1300 | 445 | 485 | 30.8 | 381   | 2 | 432   | 12 | 15°   | 25.4  | 490.5 | 167       | 50            |

# OS&Y Resilient Seat Gate Valve Fig.133FF



## Material Specifications - DN50 to DN300

| Part No | Part Description             | Material            |
|---------|------------------------------|---------------------|
| 1       | Body                         | Ductile Iron        |
| 2       | Wedge                        | Ductile Iron + EPDM |
| 3       | Stem                         | Stainless Steel 304 |
| 4       | Bonnet                       | Ductile Iron        |
| 5       | Disc Nut                     | Stainless Steel 304 |
| 6       | Gland                        | Ductile iron        |
| 7       | Stem Nut                     | Gunmetal            |
| 8       | Stem Nut Washer              | Brass               |
| 9       | Hand Wheel Washer            | Brass               |
| 10      | Hand Wheel                   | Ductile Iron        |
| 11      | Hand Wheel Nut               | Carbon Steel        |
| 12      | Packing                      | PTFE                |
| 13      | Gasket                       | EPDM                |
| 14      | Hex Scket Cap Screw          | 8.8 Rating          |
| 15      | O-Ring                       | EPDM                |
| 16      | Nut                          | Stainless Steel 304 |
| 17      | SQ Bolt                      | Stainless Steel 304 |
| 18      | Spring Washer                | Stainless Steel 304 |
| 19      | Hex Cylinder Head Set Screws | Stainless Steel 304 |
| 20      | Plug                         | Stainless Steel 304 |

## Installation

Rapidrop Fig.133FF Flanged Gate Valve is suitable for indoor and outdoor use. The valve should be installed in a location easily accessible for operation and maintenance. The valve may be installed in any position and the flow may be from either direction through the valve. Valves should be supported independently to prevent the movement and stresses from the connecting piping system.

1. Visually inspect the valve, make sure that the connecting flanges are clean of debris and any foreign materials.
2. Ensure that valve is in the closed position during handling and installation process.
3. Insert the valve with appropriate gaskets between the flanges and tighten all flange bolts using the crossover method.
4. After tightening the bolts check the operation by fully opening and closing the valve.
5. Before pressurising the system make sure the valve is in fully open position.

## Care and Maintenance

The valve should never be forced to seat by applying a wrench to the handwheel as this may distort the valve components. The use of excessive force to open or close the valve violates all warranties. The valve should not be used to force a pipeline into position as this may result in the damage of the valve components.

Rapidrop gate valves require no regular maintenance, however it is advisable to inspect and verify proper operation of the unit annually or in accordance with the authority having jurisdiction.

The inspection should include a visual check for leakage at the pipe connection and the stem.

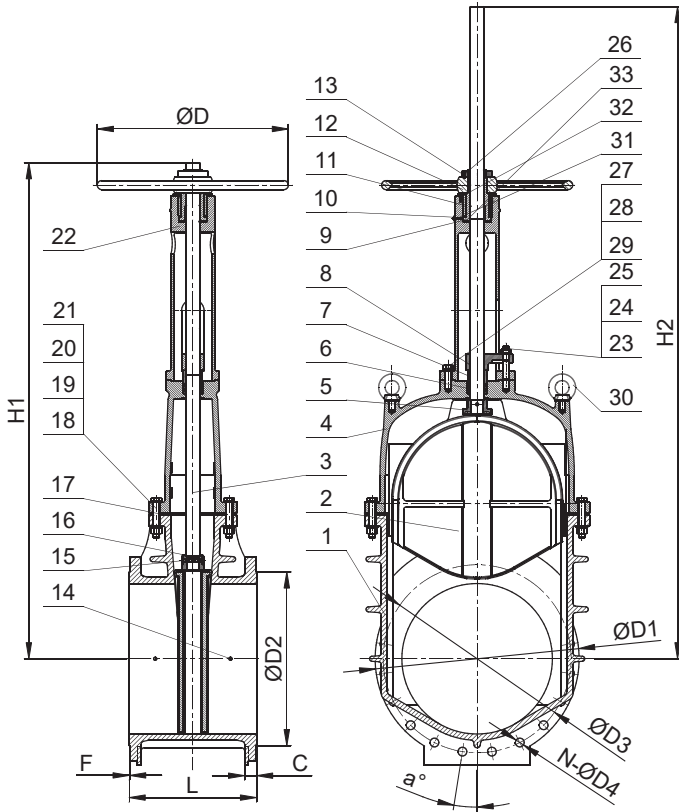
It is recommended to shut down the system if repacking the valve is necessary. Inspection and maintenance should be performed by a competent person in accordance with national codes/requirements.

Debris in the piping system might cause difficulties in closing the valve, this problem can be overcome by backing off the handwheel and closing the valve again.

Rapidrop Fig.133FF Flanged Gate Valves are suitable for both indoor and outdoor use. Minor degradations of surface finish should not affect the performance of the valve.

# OS&Y Resilient Seat Gate Valve Fig.133FF

## Material Specifications - DN350 to DN600



| Part No | Part Description                   | Material            |
|---------|------------------------------------|---------------------|
| 1       | Body                               | Ductile Iron        |
| 2       | Seat Rubber Coating                | EPDM                |
| 3       | Shaft                              | Stainless Steel 304 |
| 4       | Cover                              | Ductile Iron        |
| 5       | Disc Nut                           | Stainless Steel 304 |
| 6       | Packing                            | PTFE                |
| 7       | Packing Gland Bushing              | Brass               |
| 8       | Packing Gland                      | Ductile Iron        |
| 9       | Shaft Nut                          | Gunmetal            |
| 10      | Shaft Nut Washer                   | Brass               |
| 11      | Shaft Lock Nut                     | Brass               |
| 12      | Handwheel                          | Ductile Iron        |
| 13      | Handwheel Lock Nut                 | Steel               |
| 14      | Square Pipe Plug                   | Stainless Steel 304 |
| 15      | Pin                                | Stainless Steel 316 |
| 16      | O-Ring                             | EPDM                |
| 17      | Gasket                             | EPDM                |
| 18      | Bolt                               | Stainless Steel 304 |
| 19      | Spring Washer                      | Stainless Steel 304 |
| 20      | Nut                                | Stainless Steel 304 |
| 21      | Washer                             | Stainless Steel 304 |
| 22      | Stents                             | Ductile Iron        |
| 23      | Studs                              | Stainless Steel 304 |
| 24      | Spring Washer                      | Stainless Steel 304 |
| 25      | Nut                                | Stainless Steel 304 |
| 26      | Screw                              | Stainless Steel 304 |
| 27      | Bolt                               | Stainless Steel 304 |
| 28      | Spring Washer                      | Stainless Steel 304 |
| 29      | Washer                             | Stainless Steel 304 |
| 30      | Lifting Bolt                       | Stainless Steel 304 |
| 31      | Straight Through Injection Oil Cip | Copper              |
| 32      | Slot Countersunk Head Screws       | Steel               |
| 33      | Support Gasket                     | Brass               |

## Dimensions - DN350 to DN600

| Sizes |      | L   | H1   | H2   | ØD  | ØD1 | C    | ØD2   | F | ØD3   | N  | ØD4  | α°    | Weight kg | Turns to open |
|-------|------|-----|------|------|-----|-----|------|-------|---|-------|----|------|-------|-----------|---------------|
| mm    | inch |     |      |      |     |     |      |       |   |       |    |      |       |           |               |
| DN350 | 14"  | 381 | 1205 | 1577 | 508 | 533 | 35   | 412.8 | 2 | 476.3 | 12 | 28.6 | 15    | 277       | 50            |
| DN400 | 16"  | 406 | 1383 | 1800 | 558 | 597 | 38   | 470   | 2 | 539.8 | 16 | 28.6 | 11.25 | 366       | 57            |
| DN450 | 18"  | 432 | 1574 | 2048 | 610 | 640 | 42.9 | 533.4 | 2 | 577.9 | 16 | 32   | 11.25 | 525       | 57            |
| DN500 | 20"  | 457 | 1760 | 2297 | 610 | 715 | 42.9 | 584.2 | 2 | 635   | 20 | 32   | 9     | 744       | 42            |
| DN600 | 24"  | 508 | 1978 | 2600 | 762 | 840 | 49.6 | 692.2 | 2 | 749.3 | 20 | 35   | 9     | 1020      | 50            |