



## GENERAL FEATURES

| <i>eko2200 PN 16 CI Gate Valve</i>                    | <i>eko2300 BS 5150 - PN 16 NRS Gate Valve</i>                | <i>eko2300 BS 5150 - PN 16 OS&amp;Y Gate Valve</i>           |
|---|--|--|
| <i>Body: EN JL 1040 Heavy Duty Cast Iron</i>          | <i>Body: EN JS 1050 Ductile Iron, EN JL 1040 Cast Iron</i>   | <i>Body: EN JS 1050 Ductile Iron, EN JL 1040 Cast Iron</i>   |
| <i>Wedge: EN JL 1040</i>                              | <i>Wedge: EN JS 1050 Ductile Iron</i>                        | <i>Wedge: EN JS 1050 Ductile Iron</i>                        |
| <i>Stem: Stainless Steel 420, Stainless Steel 316</i> | <i>Stem: Stainless Steel 420, Stainless Steel 316, Brass</i> | <i>Stem: Stainless Steel 420, Stainless Steel 316, Brass</i> |
| <i>Epoxy painting in blue</i>                         | <i>Epoxy painting in blue</i>                                | <i>Epoxy painting in blue</i>                                |
| <i>Seat: Brass, Stainless Steel</i>                   | <i>Seat: Stainless Steel, Brass</i>                          | <i>Seat: Stainless Steel, Brass</i>                          |
| <i>Non rising stem</i>                                | <i>Non rising stem</i>                                       | <i>Rising Stem</i>   |
| <i>From DN 50 to DN 300</i>                           | <i>From DN 50 to DN 600</i>                                  | <i>From DN 500 to DN 600</i>                                 |

| DESIGN STANDARDS        |                               |
|-------------------------|-------------------------------|
| Valve Design            | BS EN 1171, BS 5150           |
| Connection              | Flanged, acc to EN 1092-2     |
| Face to Face Dimensions | EN 558-1 Basic Series 14 (F4) |
| Valve Test              | EN 12266-1                    |
| Marking                 | EN 19                         |

## TECHNICAL ADVANTAGES

Excellent choice for HVAC applications.

- Can be supplied with multi-turn electrical actuators

## REMARKS

eko2000 Series metal seated gate valves can be used as ISOLATION VALVES.

- Electrical actuator connection is succeeded with an intermediary top flange

## APPLICATIONS

Application fields and temperatures of eko2000 Series valves vary according to the selection of the seat.

Please choose and order the seat material considering the requirements of application.

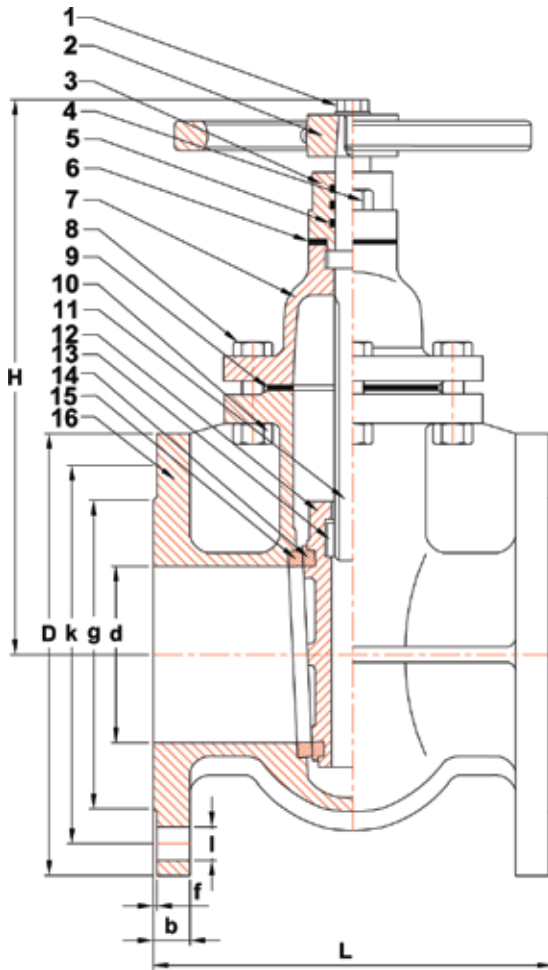


eko2300  
OS&Y

eko2300  
NRS

*PLEASE NOTE: Items written in grey are optional and can be supplied upon request.*

## TECHNICAL DRAWING AND DIMENSIONS (eko2200)



## PARTS AND MATERIALS

| No | Part Name    | Material                       |
|----|--------------|--------------------------------|
| 1  | Bolt         | DIN 933                        |
| 2  | Hand Wheel   | Cast Iron (EN-JL-1040)         |
| 3  | Bushing      | Cast Iron (EN-JL-1040)         |
| 4  | Bolt         | DIN 933                        |
| 5  | O-Ring       | EPDM                           |
| 6  | Gasket       | Graphite                       |
| 7  | Bonnet       | Cast Iron (EN-JL-1040)         |
| 8  | Bolt         | DIN 933                        |
| 9  | Gasket       | Graphite                       |
| 10 | Nut          | DIN 934                        |
| 11 | Stem         | Stainless Steel (17440X20Cr13) |
| 12 | Wedge        | Cast Iron (EN-JL-1040)         |
| 13 | Wedge Nut    | Brass (MS58)                   |
| 14 | Wedge Gasket | Brass (MS58)                   |
| 15 | Seat         | Brass (MS58)                   |
| 16 | Body         | Cast Iron (EN-JL-1040)         |

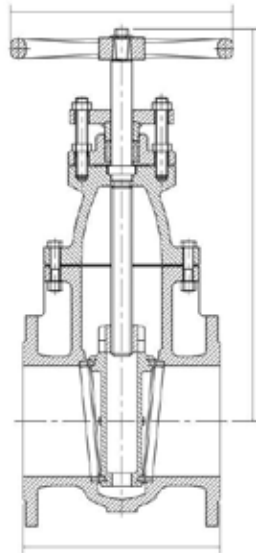
## DIMENSION TABLE (eko2200)

| DIMENSIONS |     |     | FLANGE ACC TO ISO 7005 - 2 / EN 1092-2 |     |     |     |    |    |   |                 |             |
|------------|-----|-----|--|-----|-----|-----|----|----|---|-----------------|-------------|
| DN         | H   | H   | d                                      | g   | k   | D   | l  | b  | f | Number of Holes | Weight (kg) |
| 40         | 200 | 140 | 40                                     | 84  | 110 | 160 | 19 | 18 | 3 | 4               | 11          |
| 50         | 202 | 150 | 50                                     | 99  | 125 | 165 | 19 | 20 | 3 | 4               | 11,8        |
| 65         | 222 | 170 | 65                                     | 118 | 145 | 185 | 19 | 20 | 3 | 4               | 15          |
| 80         | 250 | 180 | 80                                     | 132 | 160 | 200 | 19 | 22 | 3 | 8               | 19,2        |
| 100        | 303 | 190 | 100                                    | 156 | 180 | 220 | 19 | 24 | 3 | 8               | 26,4        |
| 125        | 351 | 200 | 125                                    | 184 | 210 | 250 | 19 | 26 | 3 | 8               | 40          |
| 150        | 411 | 210 | 150                                    | 211 | 240 | 285 | 23 | 26 | 3 | 8               | 50          |
| 200        | 498 | 230 | 200                                    | 266 | 295 | 340 | 23 | 30 | 3 | 12              | 78          |
| 250        | 579 | 250 | 250                                    | 319 | 355 | 405 | 28 | 32 | 3 | 12              | 142         |
| 300        | 679 | 270 | 300                                    | 370 | 410 | 460 | 28 | 32 | 4 | 12              | 179         |
| 350        | 870 | 290 | 350                                    | 429 | 470 | 520 | 28 | 36 | 4 | 16              | 285         |
| 400        | 941 | 310 | 400                                    | 480 | 525 | 580 | 51 | 38 | 4 | 16              | 325         |

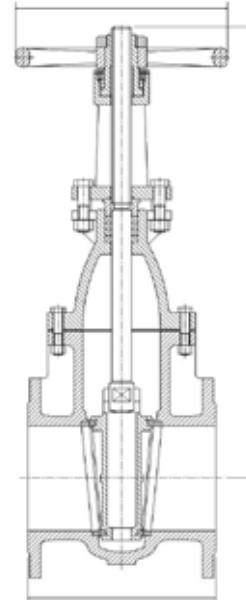


## TECHNICAL DRAWING AND DIMENSIONS (eko2300)

### NRS TYPE



### OS&Y TYPE



## DIMENSION TABLE (eko2300)

| Size          | 50  | 65  | 80  | 100 | 125 | 150 | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 600  |
|---------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| L             | 178 | 191 | 203 | 229 | 254 | 267 | 292  | 330  | 356  | 381  | 406  | 432  | 457  | 508  |
| H-OS&Y (Open) | 405 | 415 | 486 | 632 | 710 | 842 | 1100 | 1228 | 1373 | 1595 | 1900 | 2210 | 2600 | 3040 |
| H-NRS         | 327 | 322 | 340 | 420 | 477 | 542 | 668  | 750  | 835  | 1015 | 1120 | 1210 | 1250 | 1390 |
| D             | 178 | 178 | 190 | 250 | 300 | 300 | 356  | 400  | 457  | 508  | 558  | 610  | 610  | 762  |

## PARTS AND MATERIALS

| No | Part Name  |               | Material        | EN Spec.       | ASTM Spec.    |
|----|------------|---------------|-----------------|----------------|---------------|
| 1  | Body       | PN16/Class125 | Cast Iron       | EN-JL-1040     | A126 Class B  |
| 2  |            | PN25/Class250 | Ductile Iron    | EN-JS-1050     | A536 65-45-12 |
| 3  | Body Trim  |               | Bronze          | EN 1982 CC491K | B62 C83600    |
| 4  | Wedge Trim |               | Bronze          | EN 1982 CC491K | B62 C83600    |
| 5  | Wedge      | PN16/Class125 | Cast Iron       | EN-JL-1040     | A126 Class B  |
| 6  |            | PN25/Class250 | Ductile Iron    | EN-JS-1050     | A536 66-45-12 |
| 7  | Stem Nut   |               | Bronze          | EN 1982 CC491K | B62 C83600    |
| 8  | Stem       |               | Brass           | CuZn39Pb3      | B16 C83600    |
| 9  |            |               | Stainless Steel | BS970 420837   | AISI 420      |
| 10 | Bonnet     | PN16/Class125 | Cast Iron       | EN-JL-1040     | A126 Class B  |
| 11 |            | PN25/Class250 | Ductile Iron    | EN-JS-1050     | A536 66-45-12 |
| 12 | Gasket     |               | Graphite        | Non-Asbestos   | Non-Asbestos  |
| 13 | Yoke       | PN16/Class125 | Cast Iron       | EN-JL-1040     | A126 Class B  |
| 14 |            | PN25/Class250 | Ductile Iron    | EN-JS-1050     | A536 66-45-12 |
| 15 | Packing    |               | Graphite        | Non-Asbestos   | Non-Asbestos  |
| 16 | Handwheel  | PN16/Class125 | Cast Iron       | EN-JL-1040     | A126 Class B  |
| 17 |            | PN25/Class250 | Ductile Iron    | EN-JS-1050     | A536 65-45-12 |

# eko2200 & eko2300 PN16 METAL SEAT & BS5150 GATE VALVES



## GENERAL INSTRUCTIONS AND INSTALLATION



### Handle valve with precaution

Take care of the coatings and protections. Do not drag the valves, avoid shocks and frictions which may cause starters of corrosion.



### Store the equipment under good conditions

The valves must be protected from;  
Humidity and rain to avoid corrosion;

Wind, sand: to avoid the penetration of solid particles whose presence is catastrophic for the tightness;  
Sunshine and heat; they damage the coatings, particularly harmful for plastic valves and fittings very sensitive to the ultraviolet.

Valves with rubber seat must always be stored half-opened.

The apparatuses with metal seat must be stored closed (except particular specifications) to avoid the penetration of the particles in internal volumes.

Ball valves must be stored in open position.

Preserve the apparatuses with their plastic caps which should be taken away when mounting the valves.

### Clean the pipes

Rinsing the pipes is essential (water, air, steam if compatible) before testing and starting of the installations. It is critical to eliminate all the particles and several objects which could remain in the pipes and especially welding residues which could definitively damage the valve seat.

### Clean the gasket seat

Be sure that the gasket seats are perfectly clean and free from stripes.



### Align pipings

Control piping alignment. For correcting bad alignments do not rely on the valves: this may cause leakage and operating defect or even of breaking.

### Avoid Water Hammers

A rise in pressure of extreme brutality can be generated by a water hammer. A water hammer can cause the damage: butterfly valve disc splits, destroyed various apparatus, axes deformed. There are very varied causes of the water hammers but generally: the starting of pump and the sudden closing of valve.



### Respect assembly direction

Certain valves are one-way (non-return valve, knife gate valves, etc.)

Take care of an assembly in conformity with the arrow direction or of the instructions of assembly.

### Use support for heavy valves

In certain cases, valves of large length, heavy servo-motor, it can be essential to provide for supports which will avoid tensions prejudicial with the operating risking the fast deterioration of the stem and of the tightness.



### Maintenance and control

- Control the valves yearly.
- Change the gaskets after each disassembling.
- Any maintenance action must be carried out when the installation is in the atmospheric pressure.
- Cut energy supply of the actuators.
- Respect the recommended positions of assembly.
- Respect the disassembling direction.
- In the event of prolonged storage or of weak frequency of operation, lubricate the valve stem regularly.
- When assembling of an electric motor on the valve, take care to lubricate the nut of the motor and the stem of the valve.

