

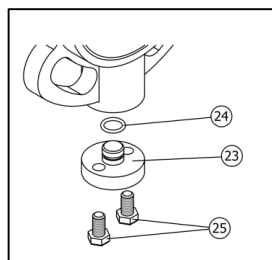
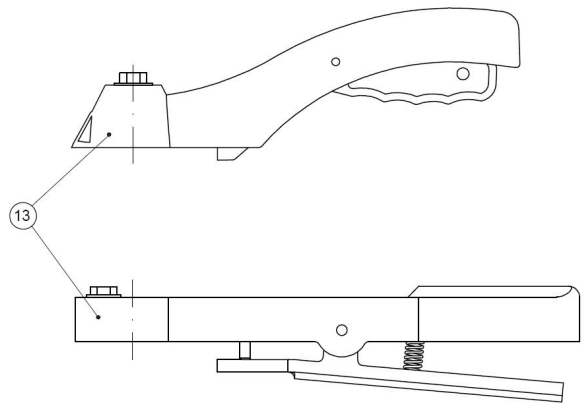
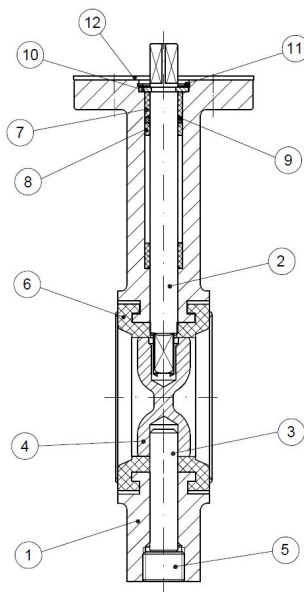
**ARTICULO: 2109**  
**Válvula de mariposa tipo wafer**  
**Butterfly valve wafer type**

### Características

1. Válvula de mariposa tipo wafer.
2. Cuerpo de fundición EN-GJL-200 (GG-20) para montaje entre bridas ANSI 150 y EN 1092 PN 10/16.
3. Elastómero de EPDM.
4. Disco de acero inoxidable 1.4408 (CF8M).
5. Brida montaje actuadores según ISO 5211.
6. Longitud entre caras según UNE EN 558-1 Serie 20 (DIN 3202 K1).
7. Recubrimiento con pintura Epoxi.
8. Temperatura de trabajo  $-20^{\circ}\text{C}$   $+120^{\circ}\text{C}$ .
9. Máxima presión de trabajo:  
 16 bar (medidas 2" a 12")  
 10 bar (medidas 14" a 24")

### Features

1. Butterfly valve wafer type.
2. EN-GJL-200 (GG-20) CI body allows installation between ANSI 150 and EN 1092 PN 10/16 flanges.
3. EPDM body seat.
4. Disc made of Stainless Steel 1.4408 (CF8M).
5. Actuator mounting plate according to ISO 5211.
6. Face to face according to UNE EN 558-1 Series 20 (DIN 3202 K1).
7. Epoxy coating.
8. Working Temperature  $-20^{\circ}\text{C}$   $+120^{\circ}\text{C}$ .
9. Maximum working pressure:  
 16 bar (sizes 2" to 12")  
 10 bar (sizes 14" to 24")

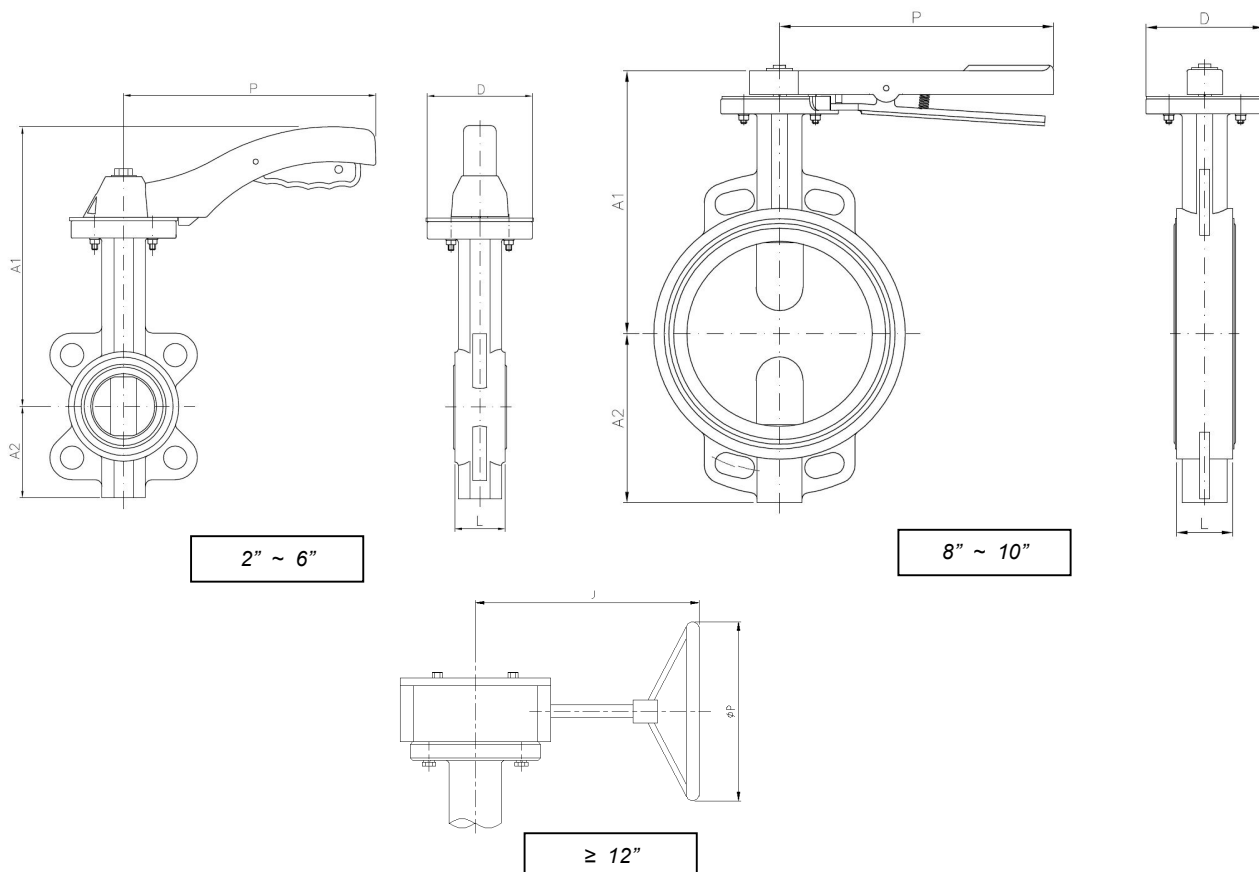


**Solamente /  
Only  $\geq 14$ "**

| N. | Denominación / Name   | Material  | Acabado Superficial / Surface Treatment | Cód. Recambio Spare Part Code |
|----|-----------------------|---|---|-------------------------------|
| 1  | Cuerpo / Body         | Fundición / Cast Iron EN-GJL-200                                    | Pintado Epoxi / Epoxy Painted           | -----                         |
| 2  | Eje / Stem            | Acero Inox. / Stainless Steel AISI 416                              | -----                                   | -----                         |
| 3  | Pivote / Pivot        | Acero Inox. / Stainless Steel AISI 416 ( $\leq 12''$ )              | -----                                   | -----                         |
| 4  | Disco / Disc          | Acero Inox. / Stainless Steel 1.4408 (CF8M)                         | Granallado / Shot blasting              | -----                         |
| 5  | Tapón / Plug          | Acero Carbono / Carbon Steel ( $\leq 12''$ )                        | Cincado / Zinc Plated                   | -----                         |
| 6* | Elastómero / Seat     | EPDM  | -----                                   | E2109                         |
| 7  | Casquillo / Bush      | PTFE + Grafito / Graphite   | -----                                   | -----                         |
| 8  | Casquillo / Bush      | PTFE + Grafito / Graphite   | -----                                   | -----                         |
| 9  | Tórica / O' ring      | NBR   | -----                                   | -----                         |
| 10 | Arandela / Washer     | Bronce / Bronze   | -----                                   | -----                         |
| 11 | Seguro / Stop Ring    | Acero Carbono / Carbon Steel  | Cincado / Zinc Plated                   | -----                         |
| 12 | Placa dentada / Plate | Acero Carbono / Carbon Steel  | Cincado / Zinc Plated                   | -----                         |
| 13 | Palanca / Handle      | Aluminio o Fundición EN-GJL-200 / Aluminium or Cast iron EN-GJL-200 | Pintado Epoxi / Epoxy Painted           | -----                         |
| 23 | Tapón /               | Fundición / Cast Iron EN-GJL-200 ( $\geq 14''$ )                    | Pintado Epoxi / Epoxy Painted           | -----                         |
| 24 | Tórica / O'ring       | NBR ( $\geq 14''$ )   | -----                                   | -----                         |
| 25 | Tornillo / Bolt       | Acero Carbono / Carbon Steel ( $\geq 14''$ )                        | Cincado / Zinc Plated                   | -----                         |

\* Piezas de recambio disponibles / Available spare parts

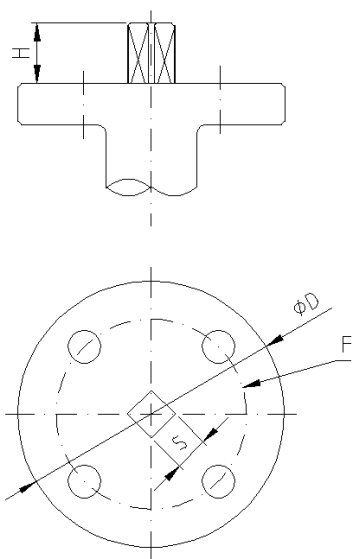
## DIMENSIONES GENERALES / GENERAL DIMENSIONS



| Ref.    | Medida / Size | DN  | PN | L   | Dimensiones / Dimensions (mm) |     |     |     | Peso / Weight (kg) |
|---------|---------------|-----|----|-----|-------------------------------|-----|-----|-----|--------------------|
|         |               |     |    |     | A1                            | A2  | J   | P   |                    |
| 2109 09 | 2"            | 50  | 16 | 43  | 238                           | 70  | *** | 170 | 2,800              |
| 2109 10 | 2 1/2"        | 65  | 16 | 46  | 238                           | 80  | *** | 170 | 3,300              |
| 2109 11 | 3"            | 80  | 16 | 46  | 238                           | 100 | *** | 170 | 3,800              |
| 2109 12 | 4"            | 100 | 16 | 52  | 270                           | 115 | *** | 215 | 5,800              |
| 2109 13 | 5"            | 125 | 16 | 56  | 300                           | 135 | *** | 215 | 7,400              |
| 2109 14 | 6"            | 150 | 16 | 56  | 300                           | 150 | *** | 215 | 8,350              |
| 2109 16 | 8"            | 200 | 16 | 60  | 280                           | 180 | *** | 300 | 14,400             |
| 2109 18 | 10"           | 250 | 16 | 68  | 330                           | 215 | *** | 300 | 21,800             |
| 2109 20 | 12"           | 300 | 16 | 78  | 360                           | 250 | 240 | 290 | 38,800             |
| 2109 22 | 14"           | 350 | 10 | 78  | 390                           | 260 | 257 | 290 | 56,100             |
| 2109 24 | 16"           | 400 | 10 | 102 | 420                           | 300 | 257 | 290 | 77,600             |
| 2109 26 | 18"           | 450 | 10 | 114 | 445                           | 330 | 306 | 400 | 115,500            |
| 2109 28 | 20"           | 500 | 10 | 127 | 480                           | 370 | 306 | 400 | 144,500            |
| 2109 32 | 24"           | 600 | 10 | 152 | 710                           | 467 | 342 | 400 | 243,000            |

\*\*\* Nota: De 2" a 6" Maneta de aluminio / From 2" to 6" Aluminium handle.  
 De 8" a 10" Maneta de fundición de hierro / From 8" to 10" cast iron handle.  
 A partir de 12" operación mediante reductor manual / From 12", handling by gear box.

### Dimensiones de brida superior / Top flange dimensions:



| Top flange dimensions |     |             |         |     |    |            |
|-----------------------|-----|-------------|---------|-----|----|------------|
| Article               | DN  | F (ISO5211) | S       | D   | H  | Torque N·m |
| 2109 09               | 50  | F05         | 11      | 65  | 16 | 12         |
| 2109 10               | 65  | F05         | 11      | 65  | 16 | 20         |
| 2109 11               | 80  | F05         | 11      | 65  | 16 | 27         |
| 2109 12               | 100 | F07         | 14      | 90  | 16 | 39         |
| 2109 13               | 125 | F07         | 14      | 90  | 16 | 58         |
| 2109 14               | 150 | F07         | 14      | 90  | 16 | 90         |
| 2109 16               | 200 | F07/F10     | 17      | 125 | 30 | 120        |
| 2109 18               | 250 | F10         | 22      | 125 | 40 | 180        |
| 2109 20               | 300 | F10/F12     | 22      | 150 | 40 | 340        |
| 2109 22               | 350 | F12         | 22      | 150 | 45 | 640        |
| 2109 24               | 400 | F14         | 27      | 175 | 45 | 805        |
| 2109 26               | 450 | F14         | 27      | 175 | 45 | 1100       |
| 2109 28               | 500 | F14         | 36      | 175 | 45 | 1500       |
| 2109 32               | 600 | F16         | Ø 50,65 | 210 | 70 | 2500       |

**Perdidas de Carga ( Kv ) según posición del disco / Head losses according to disc position:**

| DN  | Posición del Disco (grados) / Disc Position (degrees) |       |       |       |      |      |      |      |     |
|-----|---|-------|-------|-------|------|------|------|------|-----|
|     | 90°   | 80°   | 70°   | 60°   | 50°  | 40°  | 30°  | 20°  | 10° |
| 50  | 125   | 99    | 73    | 53    | 37   | 23   | 14   | 6    | 0,9 |
| 65  | 244   | 193   | 141   | 93    | 58   | 37   | 21   | 10   | 1,3 |
| 80  | 399   | 315   | 231   | 133   | 83   | 53   | 30   | 13   | 1,7 |
| 100 | 727   | 606   | 429   | 237   | 148  | 94   | 54   | 23   | 2,6 |
| 125 | 1190  | 991   | 670   | 370   | 232  | 147  | 85   | 37   | 4   |
| 150 | 1600  | 1334  | 887   | 490   | 306  | 195  | 112  | 48   | 5   |
| 200 | 2868  | 2458  | 1611  | 935   | 588  | 364  | 208  | 88   | 10  |
| 250 | 4697  | 3914  | 2550  | 1479  | 931  | 577  | 330  | 140  | 16  |
| 300 | 6987  | 5822  | 3800  | 2217  | 1379 | 869  | 480  | 203  | 23  |
| 350 | 9115  | 7676  | 5137  | 2927  | 1859 | 1142 | 654  | 259  | 29  |
| 400 | 12081   | 10173 | 6805  | 3878  | 2463 | 1513 | 866  | 343  | 39  |
| 450 | 14890   | 12539 | 8706  | 4962  | 3151 | 1935 | 1108 | 439  | 50  |
| 500 | 19323   | 16272 | 10843 | 6180  | 3924 | 2410 | 1380 | 547  | 62  |
| 600 | 37295   | 33939 | 22626 | 14297 | 8640 | 4848 | 2238 | 1057 | 130 |

**VALORES DE Kv / Kv VALUES**

Kv = Es la cantidad de metros cúbicos por hora (m<sup>3</sup>/h) que pasará a través de la válvula generando una pérdida de carga de 1 bar.

*Kv = Flow rate of water in cubic meter per hour (m<sup>3</sup>/h) that will generate a pressure drop of 1 bar across the valve.*

**VALORES DE Cv / Cv VALUES**

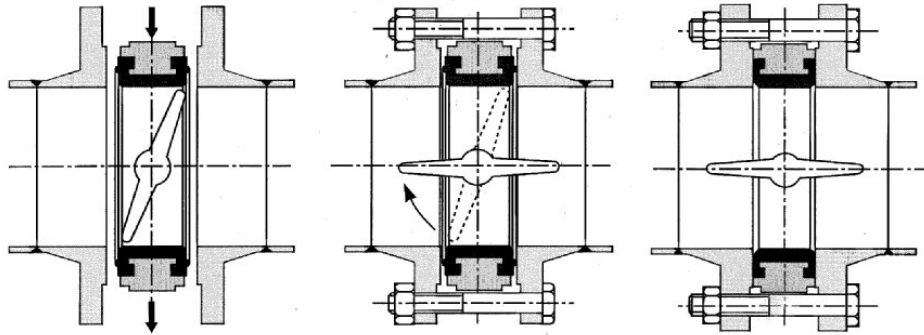
Cv = Es la cantidad de galones por minuto (gpm) que pasará a través de la válvula generando una pérdida de carga de 1 psi.

*Cv = Flow rate of water (g.p.m.) which generates a pressure drop of 1 psi across the valve.*

$$Cv = 1,156 \cdot Kv$$

**Medidas de Precaución para la instalación / Caution measures for Installation:**

1. No instale la válvula en posición totalmente cerrada / *Do not install the butterfly valve in total closed position.*
2. Verifique el buen paralelismo de las bridas / *Check the good parallelism of the flanges.*
3. No coloque otras juntas entre las bridas / *Do not insert other gaskets between flange and valve.*
4. Abra totalmente la válvula antes de apretar las bridas / *Open completely the valve before tightening flanges.*



## CURVA PRESION TEMPERATURA / *PRESSURE TEMPERATURE RATING*

