# PTFE WAFER BUTTERFLY VALVE



| | |
|---|---|
| **Size :** | DN 32/40 to 300 mm |
| **Ends :** | Between flanges GN10/16 and ASA150 |
| **Min Temperature :** | - 25°C |
| **Max Temperature :** | + 200°C |
| **Max Pressure :** | 16 Bars up to DN150 |
| **Specifications :** | Long neck for isolation<br>Wafer type<br>2 parts body<br>ISO 5211 mounting pad |
| **Materials :** | Cast iron EN GJS 500-7 body |

# PTFE WAFER BUTTERFLY VALVE

***SPECIFICATIONS :***

- Long neck for isolation
- ISO 5211 mounting pad
- Wafer type
- Between flanges GN10/16 and ASA150
- 2 parts body
- Full crossing stem
- PTFE sealing ring with silicone elastic gasket
- Stainless steel PTFE coated disc
- 9 positions lever with locking device up to DN200
- Rilsan coated body color RAL 5024 , 250-300 microns thickness
- Stem extension 75 mm length ( option )
- Square lever 30x30 mm for special key ( option )

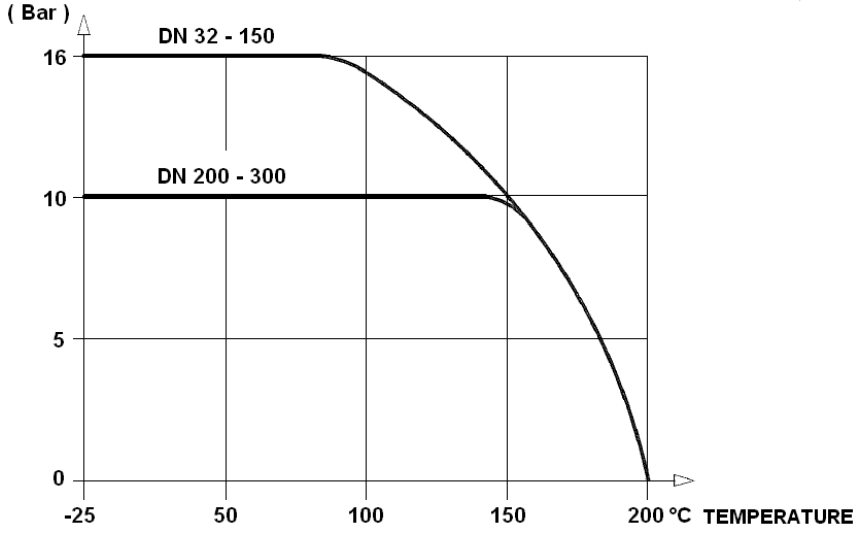
***USE :***

- For all common fluids
- Min and max Temperature Ts : - 25°C to + 200°C
- Max Pressure Ps : 16 bars up to DN150, 10 bars over ( see graph under )

***RANGE :***

- With lever from DN 32/40 to DN 200
- With gear box from DN 250 to DN 300 ( possible from DN 32/40 to DN200 : **Ref. 1197** )
- On request , chain gear box ( **Ref. 98662** ) from DN 32/40 to DN 300
- On request , stem extension with special length ( **Ref. 98665** )

***PRESSURE / TEMPERATURE GRAPH ( STEAM EXCLUDED ) :***




***ENDS :***

- Between flanges GN10-GN16 and ASA 150

# PTFE WAFER BUTTERFLY VALVE

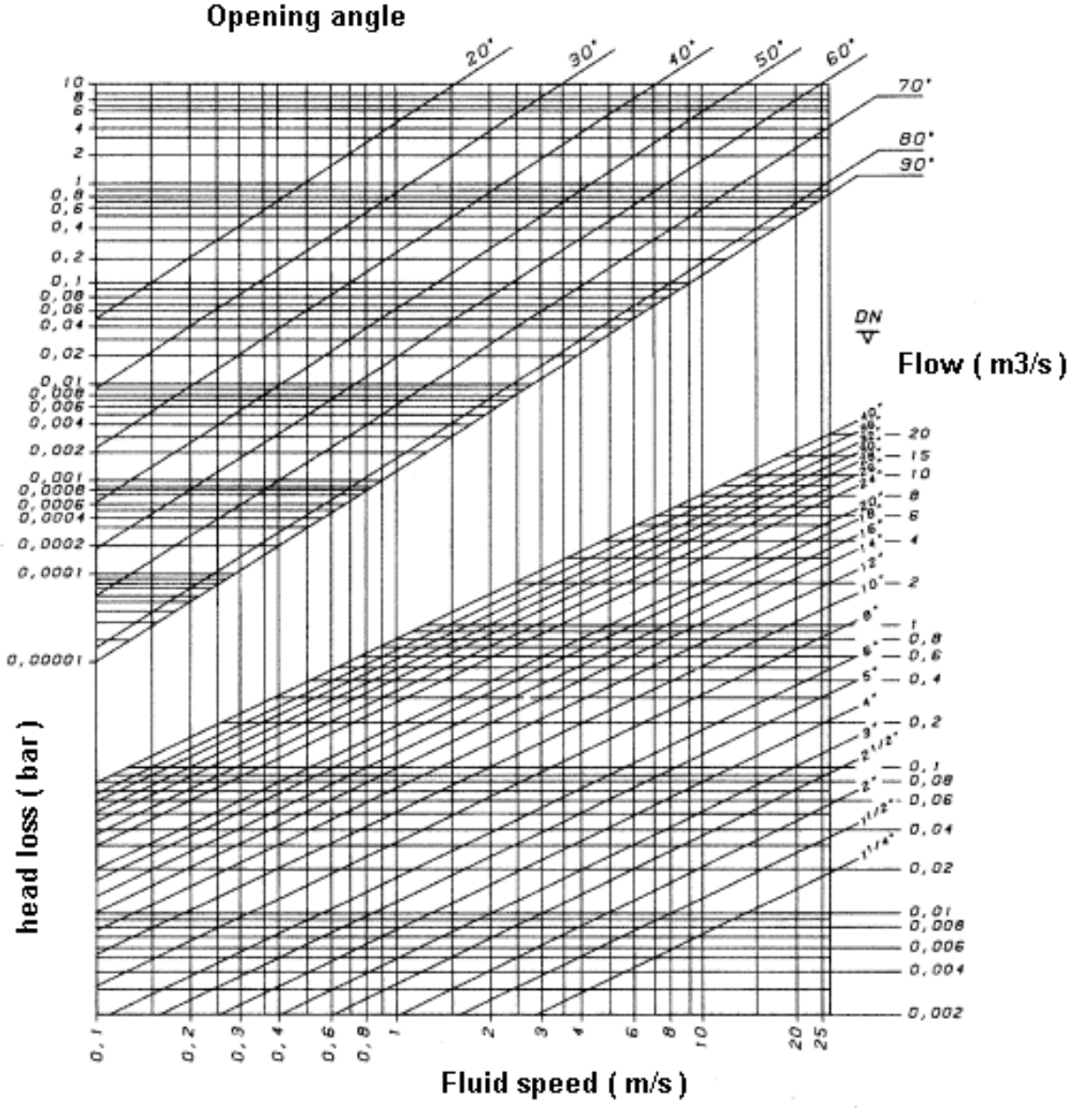
***TORQUE VALUES ( in Nm with safety coefficient of 30 % included ) at 10 Bars :***

| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| Torque ( Nm ) | 25 | 40 | 45 | 75 | 90 | 160 | 180 | 230 | 475 | 680 |

***FLOW COEFFICIENT Kv ( m3 / h ) :***

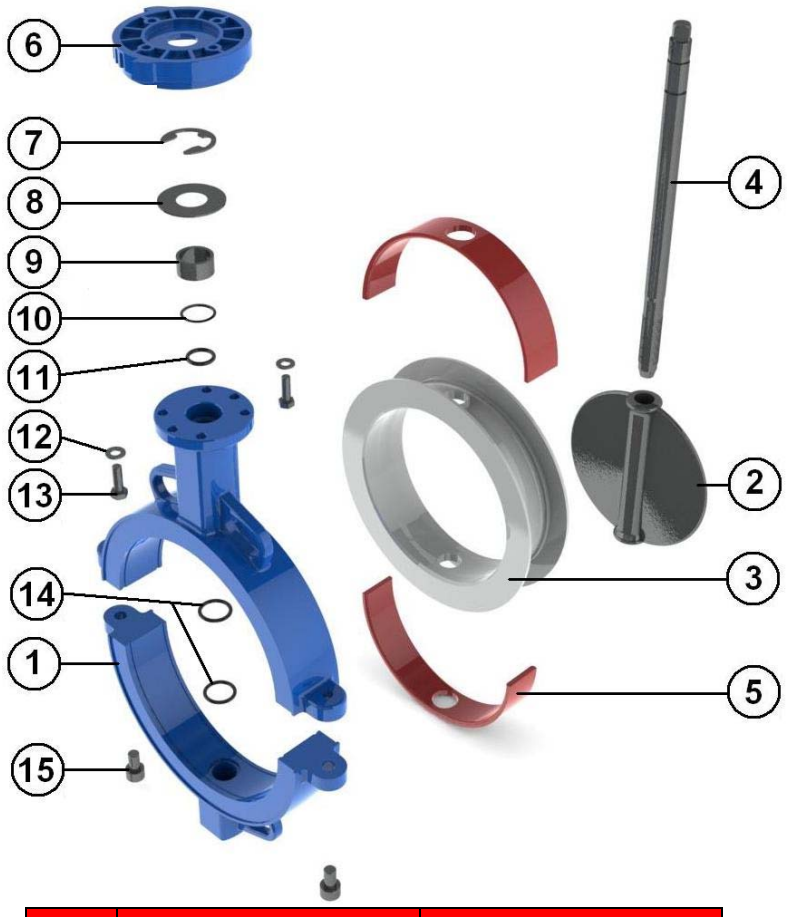
| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| Kv ( m3/h ) | 70 | 109 | 200 | 334 | 551 | 901 | 1427 | 2383 | 3825 | 5659 |

***HEAD LOSS GRAPH :***



# PTFE WAFER BUTTERFLY VALVE

***MATERIALS :***

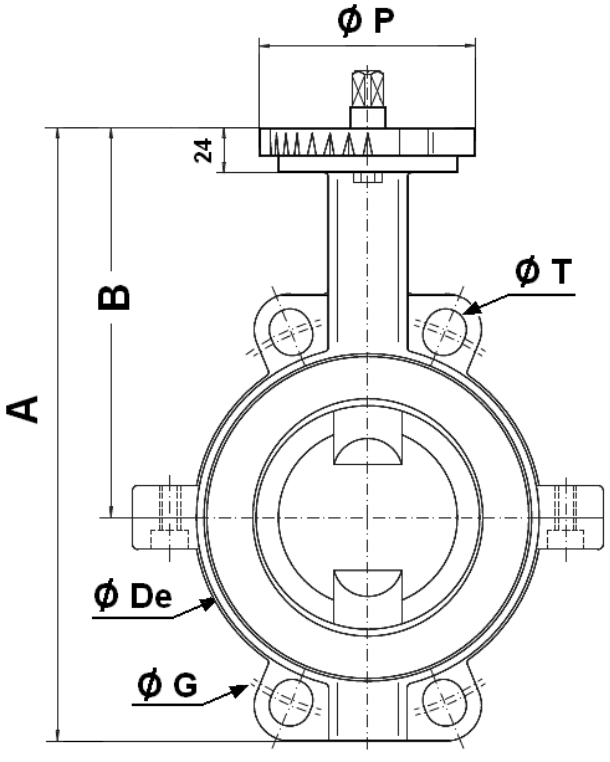


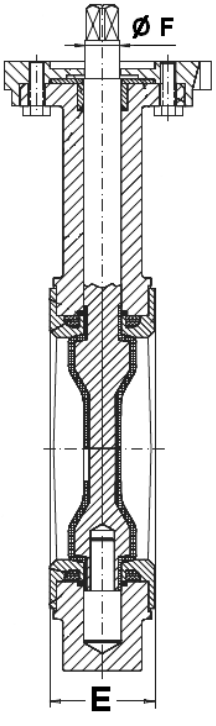

| Item | Designation | Materials |
|---|---|---|
| 1 | Body | Cast iron EN GJS-500-7 |
| 2 | Disc | CF-8M PTFE coated |
| 3 | Elastic ring | PTFE |
| 4 | Stem | SS 316 |
| 5 | Insert | Silicone |
| 6 | Plate | Aluminium |
| 7 | Circlips | SS 316 |
| 8 | Ring | SS 316 |
| 9 | Socket | SS 316 |
| 10 | O ring | FKM |
| 11 | O ring | FKM |
| 12 | Washer | SS 316 |
| 13 | Plate screw | A4 |
| 14 | O ring | FKM |
| 15 | Body screw | A4 |
|  | Lever | Aluminium |

# PTFE WAFER BUTTERFLY VALVE

***SIZE GN10 ( in mm ) :***

- **Valves :**

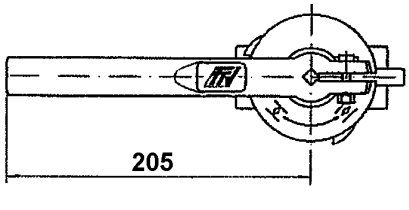


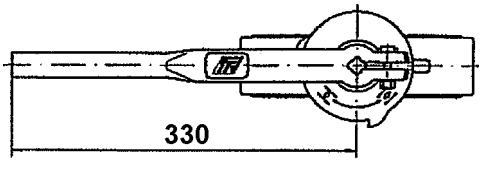

| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 205 | 228 | 243 | 266 | 294 | 324 | 349 | 438 | 448 | 515 |
| B | 140 | 156 | 162 | 170 | 185 | 207 | 216 | 256 | 248 | 280 |
| Ø De | 83 | 102 | 119 | 135 | 155 | 185 | 208 | 270 | 320 | 373 |
| E | 33 | 43 | 46 | 46 | 52 | 56 | 56 | 60 | 68 | 78 |
| Ø F | 10.5 | 10.5 | 14.5 | 16.5 | 16.5 | 18.5 | 18.5 | 22.5 | 25.5 | 30.5 |
| Ø G | 110 | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 |
| Ø P | 88 | 88 | 88 | 88 | 88 | 105 | 105 | 105 | 150 | 150 |
| Ø T | 18 | 18 | 18 | 18 | 18 | 18 | 23 | 23 | 23 | 23 |
| Weight (Kg) | 2.5 | 4 | 4.57 | 5.18 | 6.5 | 9.5 | 10.37 | 16.8 | 31 | 42 |

- **Levers :**

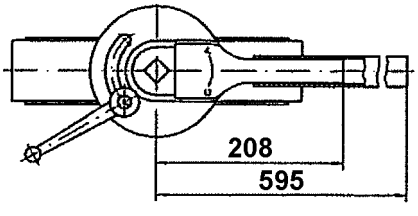
**DN 32/40 – 100**




**DN 125 – 200**



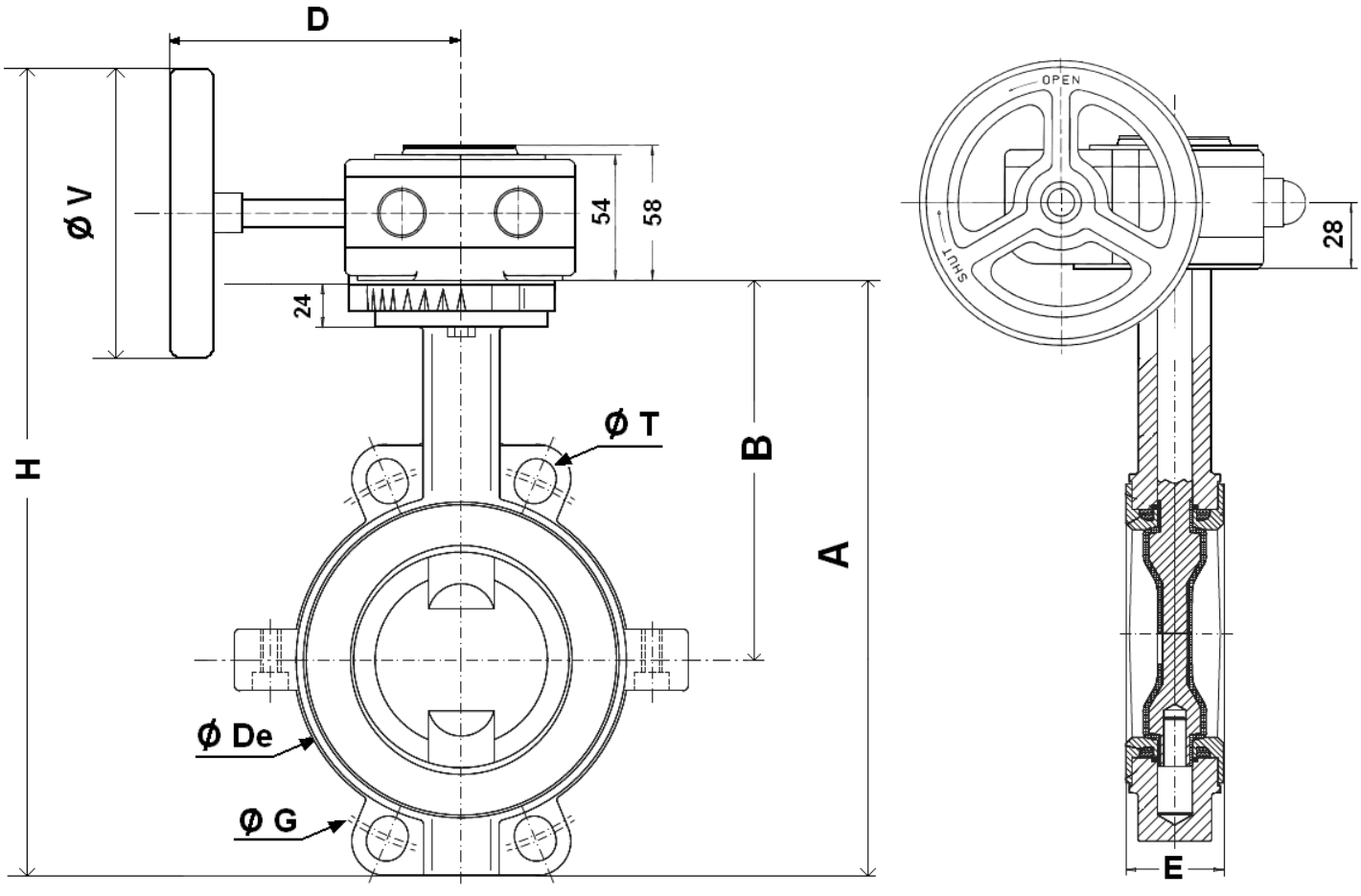

**DN 250 - 300**



# PTFE WAFER BUTTERFLY VALVE

***SIZE GN10 ( in mm ) :***

- **Valves with gear box :**

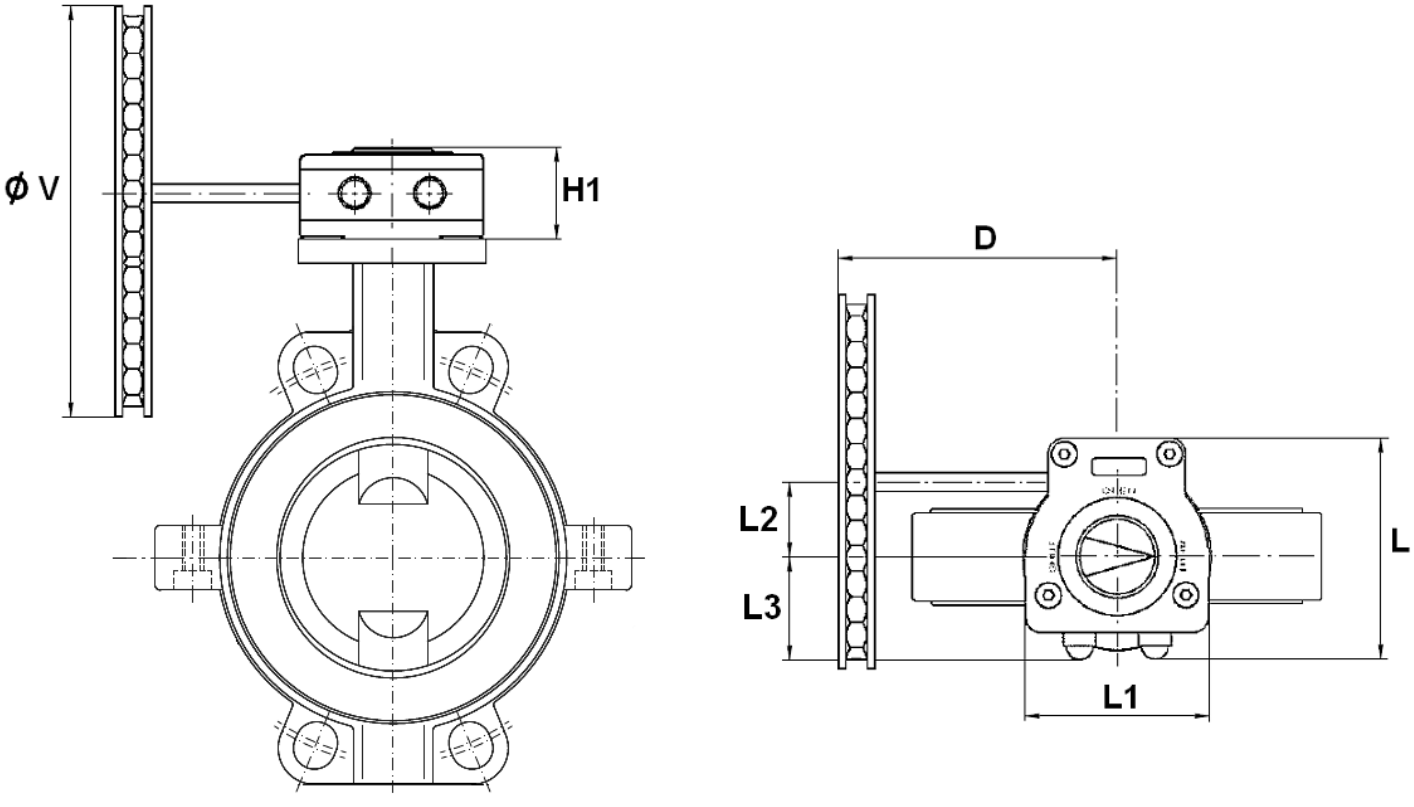



| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 205 | 228 | 243 | 266 | 294 | 324 | 349 | 438 | 448 | 515 |
| B | 140 | 156 | 162 | 170 | 185 | 207 | 216 | 256 | 248 | 280 |
| Ø De | 83 | 102 | 119 | 135 | 155 | 185 | 208 | 270 | 320 | 373 |
| D | 120 | 120 | 120 | 120 | 120 | 136 | 136 | 136 | 223 | 223 |
| E | 33 | 43 | 46 | 46 | 52 | 56 | 56 | 60 | 68 | 78 |
| H | 304 | 326 | 341 | 364 | 392 | 452 | 477 | 566 | 634 | 701 |
| Ø G | 110 | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 |
| Ø T | 18 | 18 | 18 | 18 | 18 | 18 | 23 | 23 | 23 | 23 |
| Ø V | 140 | 140 | 140 | 140 | 140 | 200 | 200 | 200 | 300 | 300 |
| Weight ( Kg ) | 3.85 | 5.35 | 5.92 | 6.53 | 7.85 | 11.25 | 12.12 | 18.55 | 35 | 46 |

# PTFE WAFER BUTTERFLY VALVE

***SIZE GN10 ( in mm ) :***

- **Valves with chain gear box :**



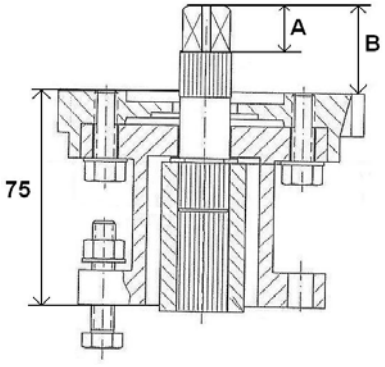

| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| D | 120 | 120 | 120 | 120 | 120 | 126 | 126 | 126 | 214 | 214 |
| H1 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 77 | 77 |
| L | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 177.5 | 177.5 |
| L1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 146 | 146 |
| L2 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 60 | 60 |
| L3 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 82.5 | 82.5 |
| Ø V | 125 | 125 | 125 | 125 | 125 | 210 | 210 | 200 | 300 | 300 |
| Weight ( Kg ) | 4.85 | 6.35 | 6.92 | 7.53 | 8.85 | 12.25 | 13.12 | 19.55 | 37.8 | 48.8 |

# PTFE WAFER BUTTERFLY VALVE

***SIZE GN10 ( in mm ) :***

- **Stem extension for isolation ( 75 mm ) :**

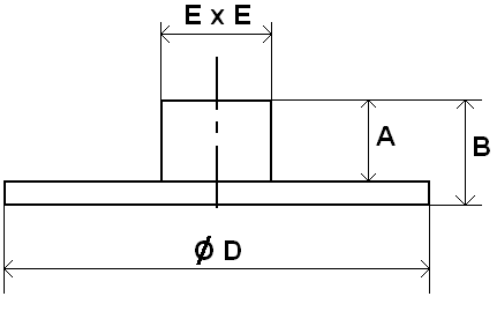





| DN | 32-50 | 65 | 80-100 | 125-150 | 200 |
|---|---|---|---|---|---|
| A | 19 | 19 | 19 | 17 | 17 |
| B | 34 | 34 | 34 | 34 | 34 |
| Weight (Kg) | 0.8 | 0.8 | 0.9 | 0.9 | 1 |

- **Square lever for special key ( 30x30 mm ) :**

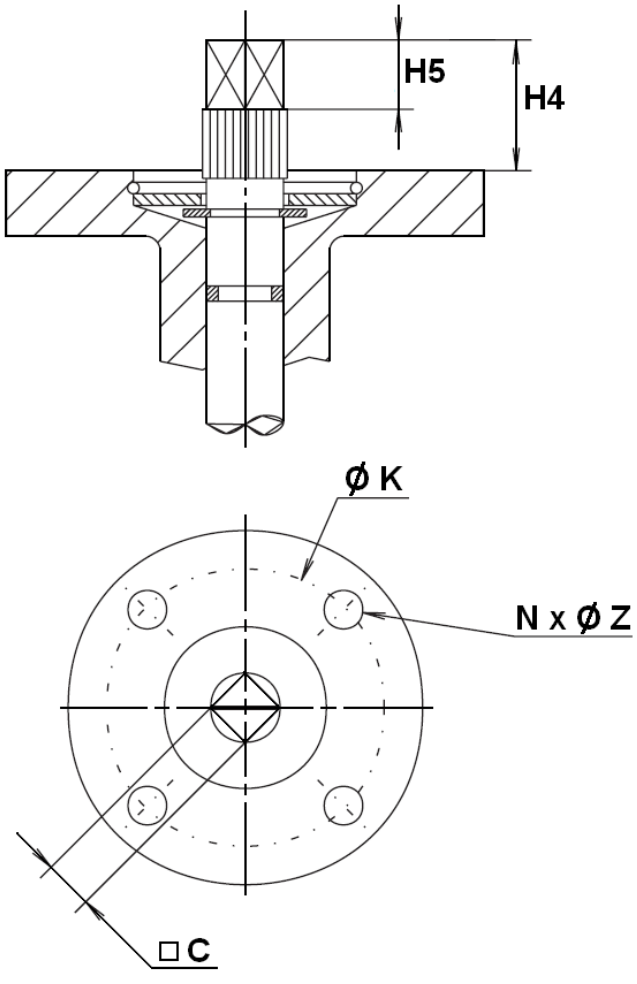





| DN | 32-50 | 65 | 80-100 | 125-150 | 200 |
|---|---|---|---|---|---|
| A | 20 | 20 | 20 | 20 | 20 |
| B | 31 | 31 | 32 | 32 | 32 |
| Ø D | 107 | 107 | 107 | 107 | 107 |
| E x E | 30 x 30 | 30 x 30 | 30 x 30 | 30 x 30 | 30 x 30 |
| Weight (Kg) | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |

# PTFE WAFER BUTTERFLY VALVE

***ISO MOUNTING PAD AND STEM SIZE ( in mm ) :***




| DN | 32/40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|---|---|
| H4 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 40 | 40 |
| H5 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 20 | 20 |
| C | 8 | 8 | 9 | 11 | 11 | 14 | 14 | 17 | 19 | 22 |
| Ø K | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 102 | 102 |
| ISO | F07 | F07 | F07 | F07 | F07 | F07 | F07 | F07 | F10 | F10 |
| N x Ø Z | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 9 | 4 x 11 | 4 x 11 |

# PTFE WAFER BUTTERFLY VALVE

***STANDARDS :***

- Fabrication according to ISO 9001:2008
- DIRECTIVE 97/23/CE : CE N° 0409
  Risk Category III module B + C1
- Tests according to ISO 5208
- Between flanges according to EN 1092-1 PN10
- ISO 5211 mounting pad
- Length according to ISO 5752 short series 20, BS 5155 Wafer short/medium, DIN 3202 part 3, series K1
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 &22 ( optional marking )

**ADVICE :** Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.

## INSTALLATION INSTRUCTIONS

### GENERAL GUIDELINES :

- Ensure that the valves to be used are appropriate for the conditions of the installation (type of fluid,pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strenght to be able to support the capacity of their usage.
- **Installation of all circuits should ensure that their function can be automatically tested on a regular basis (at least two times a year).**

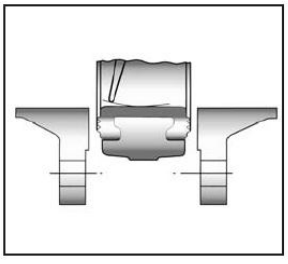
### INSTALLATION INSTRUCTIONS :

- **Before installing the valves,clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the valve (upstream and downstream) are aligned (if they're not,the valves may not work correctly).**
- **Make sure that the two sections of the pipe (upstream and downstream) match,the valve unit will not absorb any gaps.Any distortions in the pipes may affect the thightness of the connection,the working of the valve and can even cause a rupture.**To be sure,place the kit in position to ensure the assembling will work.

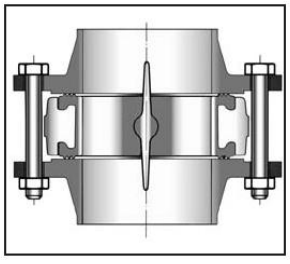
# PTFE WAFER BUTTERFLY VALVE

**INSTALLATION INSTRUCTIONS ( SUITE ):**

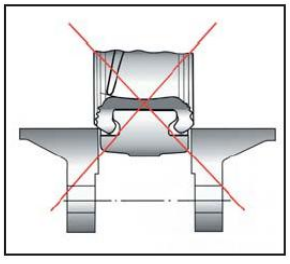
- **If sections of piping do not have their final support in place,they should be temporarily fixed.This is to avoid unnecessary strain on the valve.**
- The valve must be inserted between flanges with disc half opened but the disc must not overpass the valve thickness. Position the bolts to keep centered the valve. Then open fully the valve and tighten the bolts. **See graph under**.



**Half open valve introduction**



**Complete opened disc valves when screw tightening**



- Tighten the bolts in cross.
- The disc must move easily inside the pipe.
- Valves must be opened during cleaning operation.
- Tests must be done with a cleaned pipe.
- Tests must be done with opened valve. Test pressure must not be higher than the valve specification according to EN 12266-1.
- Then open slowly the valve.
- **Do not mount butterfly valves with stainless steel pressed collars and turning flanges.**
- **And not on flat face flanges without strias ( example : painted cast iron fittings )**

**MAINTENANCE :**

- We recommend to operate fully the valve 1 to 2 times per year.

- During maintenance operation, ensure that the pipe isn't under pressure, that there's no fluid in the pipe and that the valve is isolated. If there's a fluid in the pipe , evacuate it. Ensure that there are no risks due to the temperature or the fluid ( like acids ). If the fluid is corrosive , inert the installation before maintenance operation.