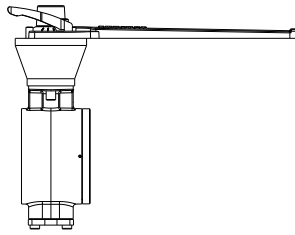


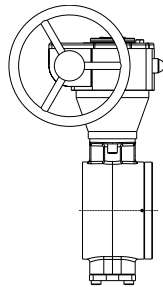
ARI-PALTRA®-V - Fig.501 - Wafer type segmented ball valve

ARI-PALTRA®-V  
with hand lever



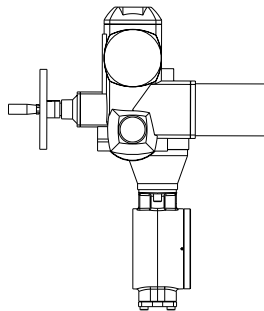
Page 4

ARI-PALTRA®-V  
with worm gear



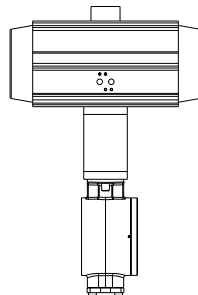
Page 5

ARI-PALTRA®-V  
with electric rotary actuator  
Auma



Page 6

ARI-PALTRA®-V  
with pneumatic actuator



Page 7

ARI-PALTRA®-V  
with hydraulic actuator

on request

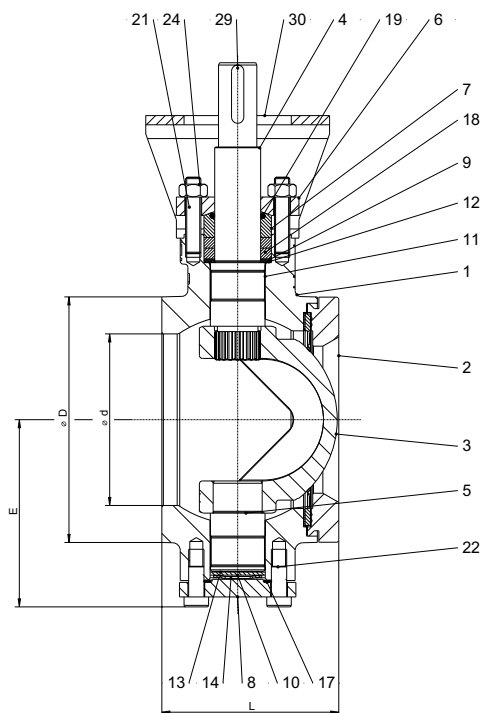


Fig.501 -  
ARI-PALTRA®-V Wafer type



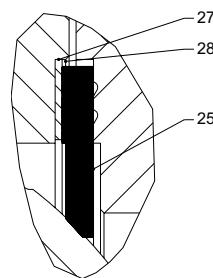
**Features:**

- Excellent control characteristics – Large rangeability
- Tightness up to a differential pressure of 40 bar
- Stainless steel body
- Metallic or PTFE+C sealing
- Replaceable seat ring
- Ball surface hard chrome plated

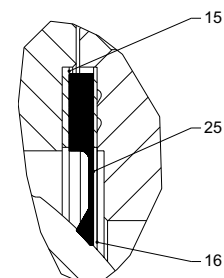
**Wafer type segmented ball valve (Stainless steel)**


| Figure | Nominal pressure | Material | Nominal diameter | Sealing elements           |
|--------|------------------|----------|------------------|----------------------------|
| 52.501 | PN16             | 1.4408   | DN 150-200       | PTFE (TC)<br>Stellite (KC) |
| 55.501 | PN40             | 1.4408   | DN 25-100        | PTFE (TC)<br>Stellite (KC) |

Face-to-face dimension acc. to industry standard



Sealing elements PTFE (TC)



Sealing elements Stellite (KC)

| Sealing element:            |                     |
|-----------------------------|---------------------|
| • PTFE (TC)                 | -40°C to 200°C      |
| • Stellite (KC)             | -40°C to 260°C      |
| Max. differential pressure: |                     |
| 52.501                      | • 16 bar - standard |
| 55.501                      |                     |

| Actuation arrangement: |  |
|------------------------|--|
| • Hand lever           | • Pneumatic actuator<br>• Hydraulic actuator |
| • Worm gear            |  |
| • Electric actuator    |  |
| Sealing leakage test:  |  |
| PTFE (TC)              | • DIN EN 12266-1 Leakage rate A              |
| Stellite (KC)          | • DIN EN 12266-1 Leakage rate D              |

**Options on request**

| Parts         |       |                            |                             |
|---------------|-------|----------------------------|-----------------------------|
| Pos.          | Sp.p. | Description                | Fig. 52.501 / 55.501        |
| 1             |       | Body                       | 1.4408                      |
| 2             |       | Clamping ring              | 1.4408                      |
| 3             |       | Segmented ball with V-cut  | 1.4408                      |
| 4             |       | Stem                       | 1.4404                      |
| 5             |       | Pivot                      | 1.4404                      |
| 6             |       | Packing box flange         | 1.4404                      |
| 7             |       | Gland follower             | 1.4404                      |
| 8             |       | Subshaft cover             | 1.4404                      |
| 9 / 10        | x     | Back-up-ring               | 1.4404                      |
| 11            | x     | Bearing strip              | PTFE on stainless steel net |
| 12 / 13       | x     | Axial-washer               | PTFE on stainless steel net |
| 14            |       | Disc spring                | 1.4404                      |
| 15 / 16       | x     | Gasket <sup>1)</sup>       | 978-C / SIGRAFLEX HOCHDRUCK |
| 17            | x     | Gasket                     | 978-C / SIGRAFLEX HOCHDRUCK |
| 18            | x     | Box packing                | Graphit                     |
| 19            | x     | O-ring                     | EPDM                        |
| 20            |       | Thread pin                 | A4-80                       |
| 21            |       | Stud                       | A4-80                       |
| 22            |       | Socket screw               | A4-80                       |
| 24            |       | Hexagon nut                | A4-80                       |
| 25            |       | Seat ring                  | TC: PTFE / KC: Stellite     |
| 27            |       | Back-up-ring <sup>2)</sup> | 1.4404                      |
| 28            | x     | Gasket <sup>2)</sup>       | 978-C / SIGRAFLEX HOCHDRUCK |
| 29            |       | Key                        | 1.0503                      |
| 30            |       | Mounting bracket           | 1.0576                      |
| L Spare parts |       |                            |                             |

<sup>1)</sup> Only for KC-version

<sup>2)</sup> Only for TC-version

Information / restriction of technical rules need to be observed!

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and suitability must be verified (contact manufacturer for information, refer to Product overview).

TC = Teflon seal and Chromed ball segment

KC = Stellite (Karkaistu) seal and Chromed ball segment

|           |           |           |           |           |           |           |            |            |            |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| <b>DN</b> | <b>25</b> | <b>32</b> | <b>40</b> | <b>50</b> | <b>65</b> | <b>80</b> | <b>100</b> | <b>150</b> | <b>200</b> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|

**Face-to-face dimension**

|   |      |    |    |    |    |     |     |     |     |     |
|---|------|----|----|----|----|-----|-----|-----|-----|-----|
| L | (mm) | 50 | 55 | 60 | 75 | 100 | 100 | 115 | 160 | 200 |
|---|------|----|----|----|----|-----|-----|-----|-----|-----|

**Dimensions**

|                               |      |                                     |     |       |       |     |     |       |       |     |
|-------------------------------|------|-------------------------------------|-----|-------|-------|-----|-----|-------|-------|-----|
| Ød (Stem diameter)            | (mm) | 11                                  | 11  | 15    | 15    | 20  | 20  | 25    | 25    | 30  |
| ØD (Outer diameter flange)    | (mm) | 115                                 | 140 | 150   | 165   | 185 | 200 | 220   | 250   | 25  |
| E (Middle - bottom)           | (mm) | 59                                  | 67  | 79    | 83    | 91  | 99  | 123   | 133   | 191 |
| H (Middle – mounting bracket) | (mm) | 172                                 | 172 | 186,5 | 190,5 | 222 | 240 | 253,5 | 293,5 | 357 |
| I (Bare stem length)          | (mm) | on request                          |     |       |       |     |     |       |       |     |
| Flange ISO 5211               |      | Depending on the actuator selection |     |       |       |     |     |       |       |     |

**Weights**

|        |             |      |     |     |     |     |     |     |      |      |      |
|--------|-------------|------|-----|-----|-----|-----|-----|-----|------|------|------|
| 1.4408 | Fig. 52.501 | (kg) | -   | -   | -   | -   | -   | -   | -    | 29,6 | 45,0 |
| 1.4408 | Fig. 55.501 | (kg) | 1,9 | 2,1 | 3,5 | 4,7 | 7,6 | 8,8 | 12,8 | -    | -    |

**Pressure-temperature-ratings**

Intermediate values for max. permissible operational pressure can be determined by linear interpolation of the given temperature / pressure chart.

| acc. to Högfors-Werknorm | PN |       | -40 °C | 0 °C | 50 °C | 100 °C | 150 °C | 200 °C | 250 °C | 260 °C |
|--------------------------|----|-------|--------|------|-------|--------|--------|--------|--------|--------|
| 1.4408                   | 16 | (bar) | 16     | 16   | 16    | 15,1   | 13,7   | 12,7   | 11,9   | 11,7   |
| 1.4408                   | 40 | (bar) | 40     | 40   | 40    | 38,1   | 34,2   | 30,2   | 28,0   | 27,6   |

**Operating limits sealing element <sup>1)</sup>**

Intermediate values for max. differential pressure can be determined by linear interpolation of the given temperature / pressure chart.

| Sealing PTFE (TC) | -40 °C | 0 °C | 50 °C | 100 °C | 120 °C | 150 °C | 180 °C | 200 °C | 250 °C | 260 °C |
|-------------------|--------|------|-------|--------|--------|--------|--------|--------|--------|--------|
|                   | 16     | 16   | 16    | 16     | 16     | 11,5   | 7      | 4      | -      | -      |

<sup>1)</sup> Note additional restrictions of the pressure-temperature-ratings!

|           |           |           |           |           |           |           |            |            |            |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| <b>DN</b> | <b>25</b> | <b>32</b> | <b>40</b> | <b>50</b> | <b>65</b> | <b>80</b> | <b>100</b> | <b>150</b> | <b>200</b> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|

**Operation torque for max. differential pressure 16 bar (bi-directional flow)**

|                       |                   |                      |      |    |    |    |    |    |    |     |     |     |
|-----------------------|-------------------|----------------------|------|----|----|----|----|----|----|-----|-----|-----|
| PN16-40 <sup>2)</sup> | Sealing PTFE (TC) | Torque <sup>3)</sup> | (Nm) | 20 | 20 | 28 | 39 | 52 | 70 | 100 | 240 | 340 |
|-----------------------|-------------------|----------------------|------|----|----|----|----|----|----|-----|-----|-----|

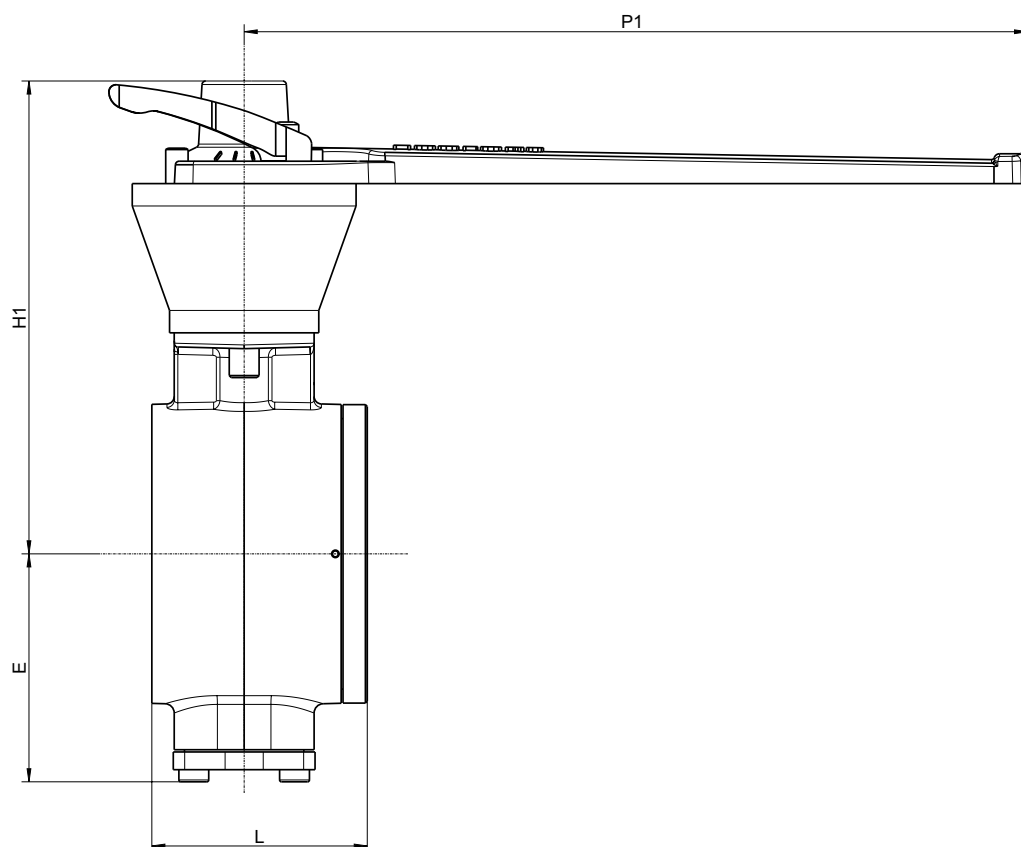
<sup>2)</sup> max. differential pressure 16bar!

<sup>3)</sup> For steam duty use the next size up

**PALTRA®-V Wafer type segmented ball valve with hand lever**

Opening and closing of the valves with the hand lever.

The segmented ball valve is closed when the hand lever points in the direction of the pipeline.



| Parts |               |             |                      |
|-------|---------------|-------------|----------------------|
| Pos.  | Sp.p.         | Description | Fig. 52.501 / 55.501 |
| 50    | x             | Hand lever  |                      |
|       | L Spare parts |             |                      |

| DN | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 150 | 200 |
|----|----|----|----|----|----|----|-----|-----|-----|
|----|----|----|----|----|----|----|-----|-----|-----|

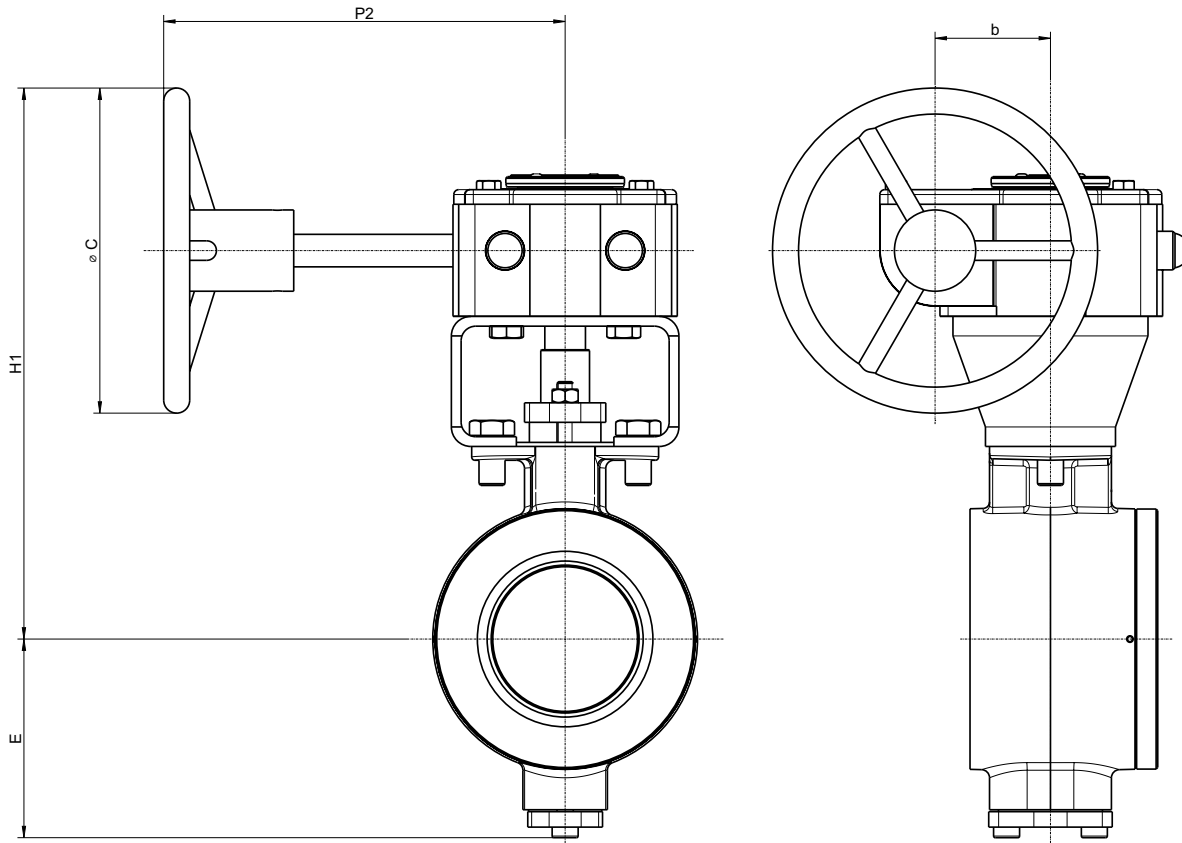
| Dimensions              |      |     |     |       |       |     |     |       |       |     |
|-------------------------|------|-----|-----|-------|-------|-----|-----|-------|-------|-----|
| E                       | (mm) | 59  | 67  | 79    | 83    | 91  | 99  | 123   | 133   | 191 |
| H1 (to middle of valve) | (mm) | 172 | 172 | 186,5 | 190,5 | 222 | 240 | 253,5 | 293,5 | 357 |
| P1                      | (mm) | 186 | 186 | 300   | 300   | 300 | 300 | 420   | 420   | 420 |

| Weights with hand lever |             |      |     |     |     |     |     |      |      |      |      |
|-------------------------|-------------|------|-----|-----|-----|-----|-----|------|------|------|------|
| 1.4408                  | Fig. 52.501 | (kg) | -   | -   | -   | -   | -   | -    | -    | 33,4 | 50,5 |
| 1.4408                  | Fig. 55.501 | (kg) | 3,3 | 3,5 | 4,9 | 6,1 | 9,4 | 10,7 | 16,2 | -    | -    |

**PALTRA®-V Wafer type segmented ball valve with worm gear**

Opening and closing of the valves with the handwheel.

The position of the segmented ball can be seen on a position indicator on top of the gear.

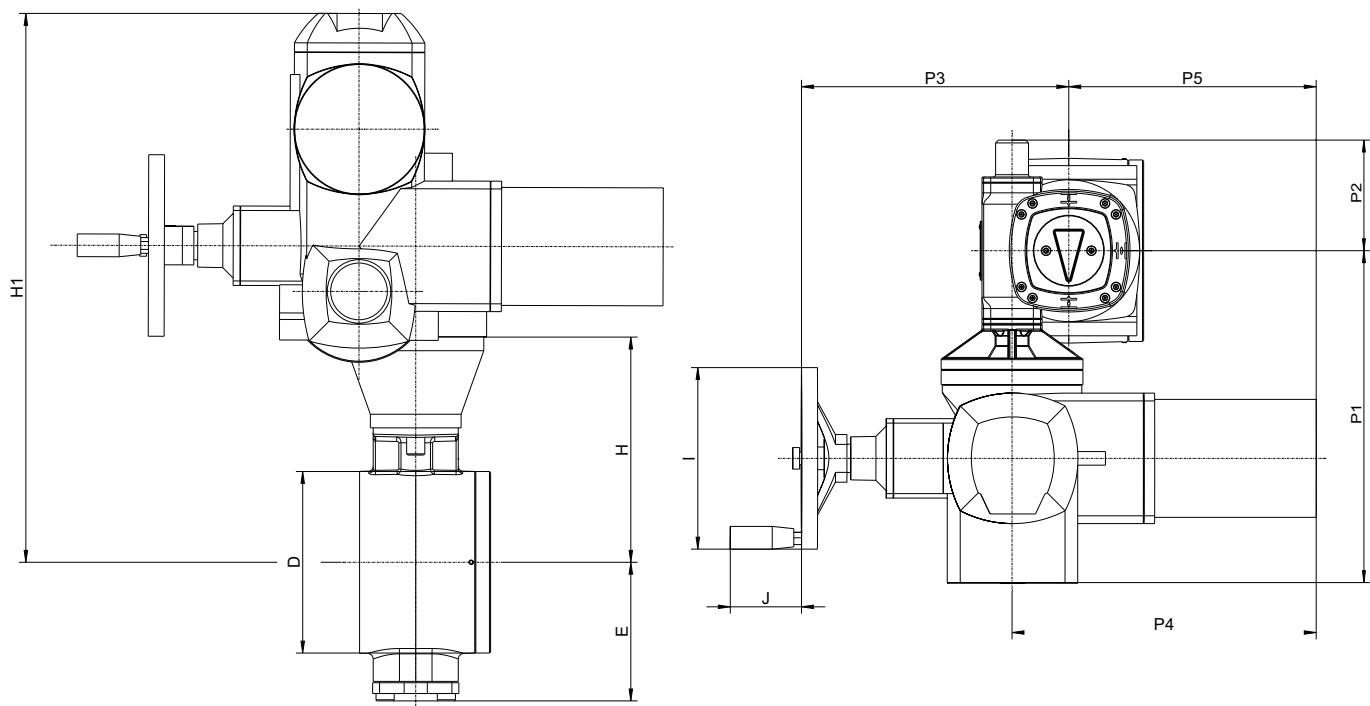


| Parts |               |             |                      |
|-------|---------------|-------------|----------------------|
| Pos.  | Sp.p.         | Description | Fig. 52.501 / 55.501 |
| 500   | x             | Worm gear   |                      |
|       | L Spare parts |             |                      |

| DN | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 150 | 200 |
|----|----|----|----|----|----|----|-----|-----|-----|
|----|----|----|----|----|----|----|-----|-----|-----|

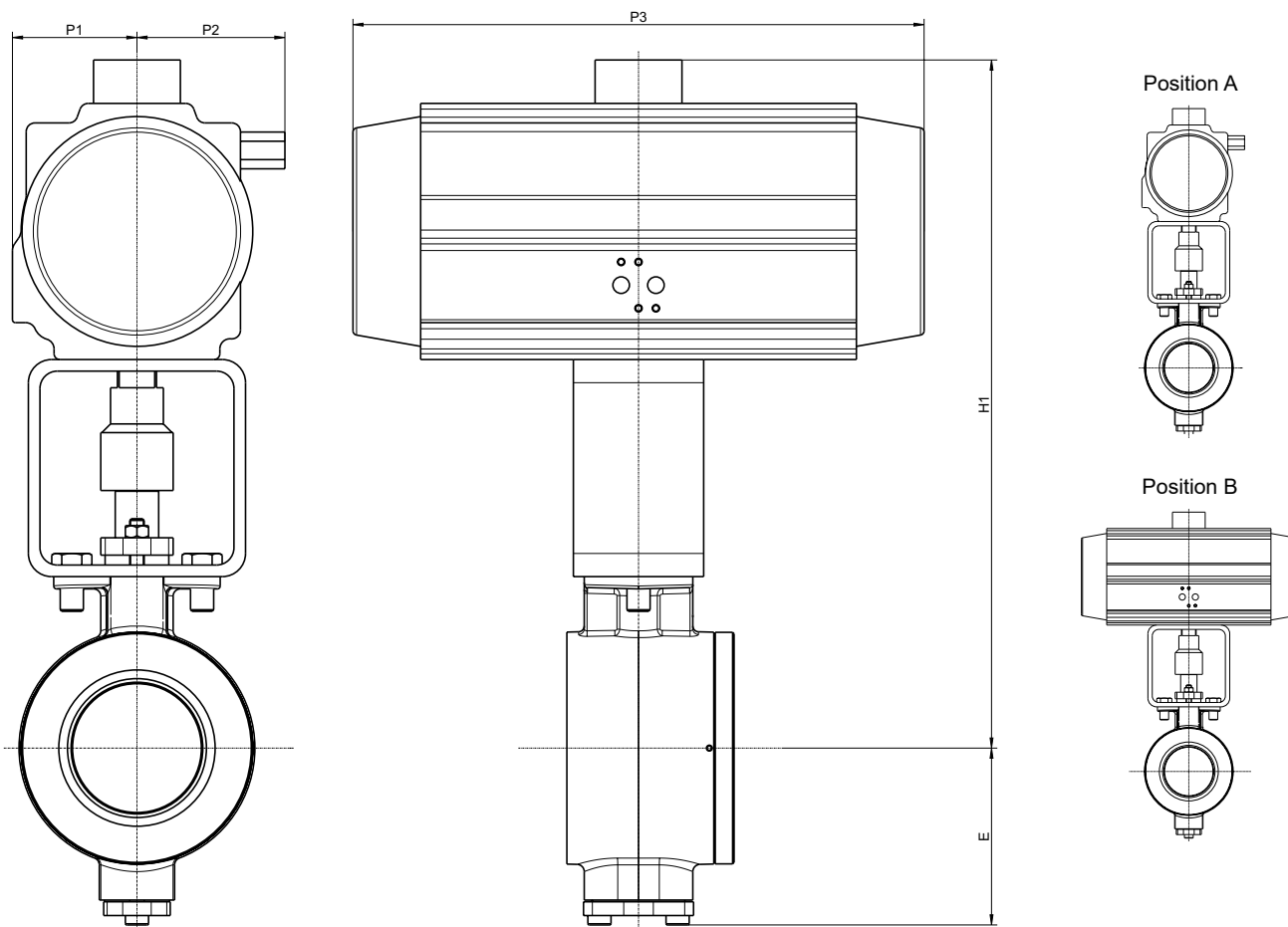
| Dimensions   |      |            |        |        |        |        |        |        |        |
|--------------|------|------------|--------|--------|--------|--------|--------|--------|--------|
| b            | (mm) | on request | 52     | 52     | 52     | 52     | 71     | 71     | 71     |
| ØC           | (mm) |            | 200    | 200    | 200    | 200    | 200    | 200    | 300    |
| E            | (mm) |            | 79     | 83     | 91     | 99     | 123    | 133    | 191    |
| H1           | (mm) |            | 259    | 263    | 295    | 313    | 339    | 369    | 482,5  |
| P2           | (mm) |            | 215    | 215    | 215    | 215    | 247    | 247    | 282    |
| Type of gear |      |            | AB210N | AB210N | AB210N | AB210N | AB550N | AB550N | AB550N |

| Weights with manual gear |             |      |            |     |      |      |      |      |      |      |
|--------------------------|-------------|------|------------|-----|------|------|------|------|------|------|
| 1.4408                   | Fig. 52.501 | (kg) | on request | -   | -    | -    | -    | -    | 34,7 | 54,1 |
| 1.4408                   | Fig. 55.501 | (kg) |            | 9,8 | 11,4 | 12,9 | 13,0 | 18,6 | -    | -    |

**PALTRA®-V Wafer type segmented ball valve with electric rotary actuator Auma**


| DN                |       | 25                       | 32                       | 40                       | 50                       | 65                       | 80                       | 100                      | 150                      | 200                      |
|-------------------|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Dimensions</b> |       |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| E                 | (mm)  | 59                       | 67                       | 79                       | 83                       | 91                       | 99                       | 123                      | 133                      | 191                      |
| H                 | (mm)  | 118                      | 118                      | 130                      | 134                      | 165,5                    | 183,5                    | 199                      | 228,5                    | 192                      |
| H1                | (mm)  | 403                      | 403                      | 415                      | 419                      | 450,5                    | 468,5                    | 484                      | 514                      | 582                      |
| I                 | (mm)  | 160                      | 160                      | 160                      | 160                      | 160                      | 160                      | 160                      | 160                      | 160                      |
| J                 | (mm)  | 63                       | 63                       | 63                       | 63                       | 63                       | 63                       | 63                       | 63                       | 63                       |
| P1                | (mm)  | 293                      | 293                      | 293                      | 293                      | 293                      | 293                      | 293                      | 293                      | 321                      |
| P2                | (mm)  | 97,5                     | 97,5                     | 97,5                     | 97,5                     | 97,5                     | 97,5                     | 97,5                     | 97,5                     | 128                      |
| P3                | (mm)  | 299                      | 299                      | 299                      | 299                      | 299                      | 299                      | 299                      | 299                      | 312                      |
| P5                | (mm)  | 218                      | 218                      | 218                      | 218                      | 218                      | 218                      | 218                      | 218                      | 205                      |
| Type of actuator  |       | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F07 | SA07.2-GS50.3 (51:1)-F10 | SA07.2-GS50.3 (51:1)-F10 | SA07.6-GS63.3 (51:1)-F12 |
| Output drive      | 1/min | 22                       | 22                       | 22                       | 22                       | 22                       | 22                       | 22                       | 22                       | 22                       |
| Operating time    | s/90° | 35                       | 35                       | 35                       | 35                       | 35                       | 35                       | 35                       | 35                       | 35                       |

| <b>Weights with electric actuator</b> |             |      |      |      |      |      |      |      |      |      |      |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|
| 1.4408                                | Fig. 52.501 | (kg) | -    | -    | -    | -    | -    | -    | -    | 56,6 | 77,0 |
| 1.4408                                | Fig. 55.501 | (kg) | 28,9 | 29,1 | 30,5 | 31,7 | 34,6 | 35,8 | 39,8 | -    | -    |

**PALTRA®-V Wafer type segmented ball valve with pneumatic rotary actuator AIR-TORQUE**


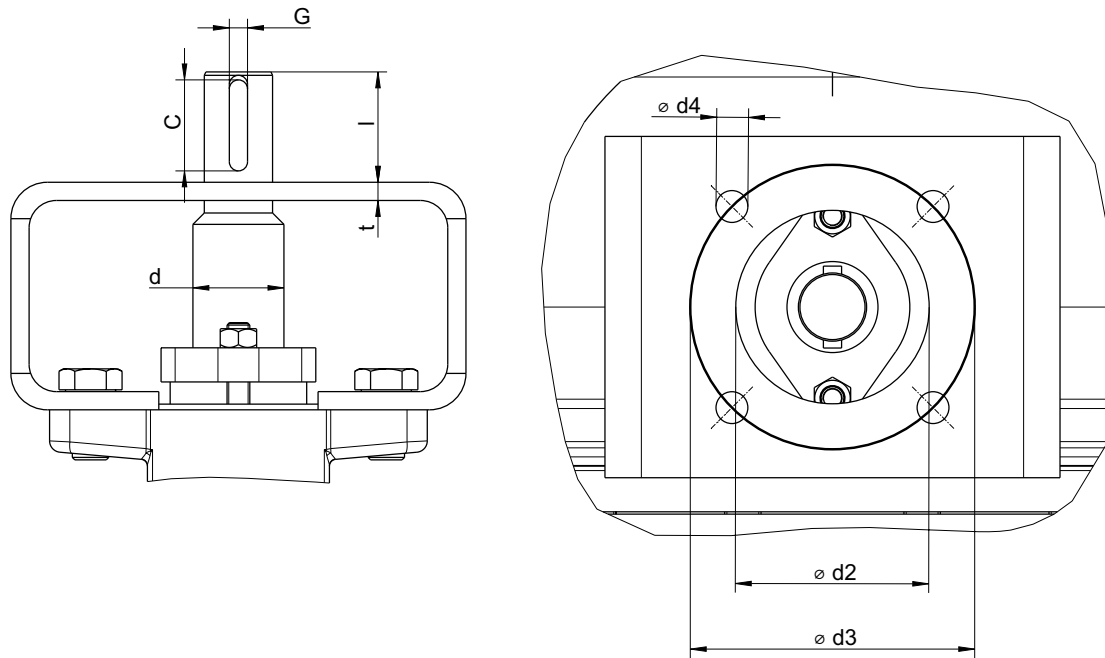
| DN   |      | 25        | 32        | 40        | 50        | 65        | 80        | 100       | 150       | 200       |
|--|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Dimensions</b>  |      |           |           |           |           |           |           |           |           |           |
| E  | (mm) | 59        | 68        | 79        | 83        | 91        | 99        | 123       | 133       | 191       |
| H1   | (mm) | 293       | 293       | 325       | 341       | 410,5     | 440,5     | 475,5     | 505,5     | 687       |
| P1   | (mm) | 56,5      | 56,5      | 56,5      | 63        | 77        | 77        | 86        | 86        | 111,5     |
| P2   | (mm) | 62        | 62        | 62        | 73        | 85        | 85        | 102       | 102       | 140       |
| P3   | (mm) | 241       | 241       | 241       | 259       | 304       | 333       | 394,5     | 394,5     | 528       |
| <b>Type of actuator</b>  |      |           |           |           |           |           |           |           |           |           |
| Spring opens<br>Actuating pressure actuator 6 bar <sup>1)</sup>  | TC   | SO00100-6 | SO00100-6 | SO00100-6 | SO00150-6 | SO00220-6 | SO00300-6 | SO00450-6 | SO00450-6 | SO01200-6 |
|  | KC   | SO00100-6 | SO00100-6 | SO00100-6 | SO00150-6 | SO00220-6 | SO00300-6 | SO00450-6 | SO00450-6 | SO01200-6 |
| Spring closes<br>Actuating pressure actuator 6 bar <sup>1)</sup> | TC   | SC00100-6 | SC00100-6 | SC00100-6 | SC00150-6 | SC00220-6 | SC00300-6 | SC00450-6 | SC00450-6 | SC01200-6 |
|  | KC   | SC00100-6 | SC00100-6 | SC00100-6 | SC00150-6 | SC00220-6 | SC00300-6 | SC00450-6 | SC00450-6 | SC01200-6 |
| Double acting<br>Actuating pressure actuator 6 bar <sup>1)</sup> | TC   | DR00030U  | DR00030U  | DR00060U  | DR00060U  | DR00100U  | DR00100U  | DR00150U  | DR00220U  | DR00450U  |
|  | KC   | DR00030U  | DR00030U  | DR00060U  | DR00060U  | DR00100U  | DR00100U  | DR00150U  | DR00220U  | DR00450U  |

| <b>Weights with pneumatic actuator <sup>2)</sup></b> |             |      |      |      |      |      |      |      |      |      |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|
| 1.4408   | Fig. 52.501 | (kg) | -    | -    | -    | -    | -    | -    | -    | 51,7 | 96,6 |
| 1.4408   | Fig. 55.501 | (kg) | 11,3 | 11,5 | 12,9 | 15,7 | 22,0 | 26,2 | 34,9 | -    | -    |

For steam duty use the next actuator up

<sup>1)</sup> other actuating pressure on request

<sup>2)</sup> with largest actuator option

**Actuator flange connection, with 2 parallel keys 180° rotated**


| DN                                  |      | 25  | 32 | 40 | 50 | 65 | 80 | 100 | 150 | 200 |
|-------------------------------------|------|---|----|----|----|----|----|-----|-----|-----|
| Connection EN ISO 5211              |      | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |
| Ød (stem diameter)                  | (mm) | 11  | 11 | 15 | 15 | 20 | 20 | 25  | 25  | 30  |
| Ød2 (inside diameter)               | (mm) | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |
| Ød3 (screw-hole circle diameter)    | (mm) | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |
| n x Ød4 (Number x hole-Ø)           | (mm) | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |
| C (parallel key length)             | (mm) | 20  | 20 | 25 | 25 | 32 | 32 | 36  | 36  | 36  |
| G (parallel key width)              | (mm) | 3   | 3  | 5  | 5  | 6  | 6  | 8   | 8   | 8   |
| l (bare stem length)                | (mm) | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |
| t (mounting bracket wall thickness) | (mm) | on request<br>Depending on the actuator selection |    |    |    |    |    |     |     |     |



| Kvs-value / Zeta-value |                     | 25   | 32   | 40   | 50   | 65   | 80   | 100  | 150 | 200  |
|------------------------|---------------------|------|------|------|------|------|------|------|-----|------|
| DN                     |                     | 25   | 32   | 40   | 50   | 65   | 80   | 100  | 150 | 200  |
| Kvs-value              | (m <sup>3</sup> /h) | 14   | 26   | 42   | 75   | 100  | 180  | 280  | 390 | 950  |
| Zeta-value             | --                  | 3,18 | 2,48 | 2,32 | 1,78 | 2,85 | 2,02 | 2,04 | 5,2 | 2,83 |

| Control characteristic |  | 25                        | 32 | 40 | 50 | 65    | 80 | 100 | 150 | 200 |
|------------------------|--|---------------------------|----|----|----|-------|----|-----|-----|-----|
| DN                     |  | 25                        | 32 | 40 | 50 | 65    | 80 | 100 | 150 | 200 |
| Rangeability           |  | 50:1                      |    |    |    | 100:1 |    |     |     |     |
| Characteristic         |  | modified equal percentage |    |    |    |       |    |     |     |     |

