

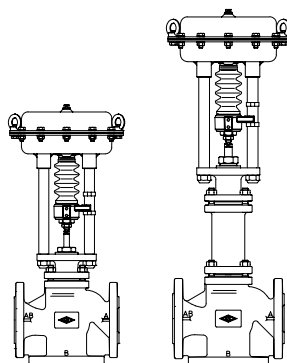
With pneumatic and electric actuators

**ARI-STEVI® 450 / 451**

**Pneumatic actuator**

**ARI-DP 32-34T**

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure max. 6 bar
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6



Page 4

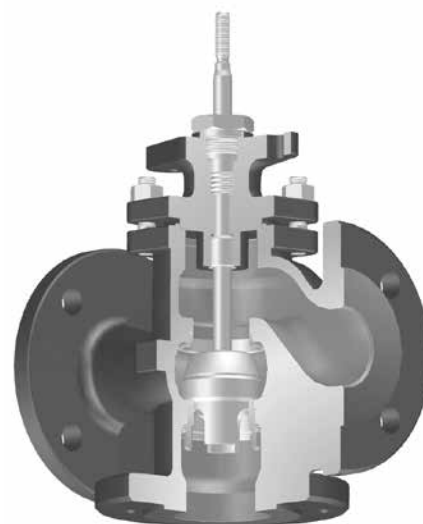


Fig. 450

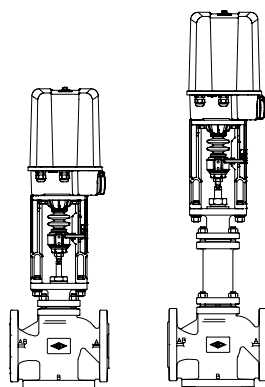
**ARI-STEVI® 450 / 451**

**Electric actuator**

**ARI-PREMIO 2,2-25 kN**

**ARI-PREMIO-Plus 2G 2,2-25 kN**

- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



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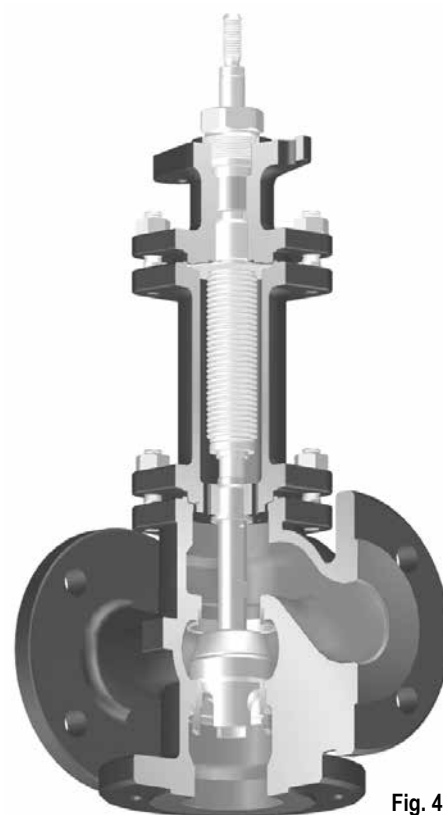


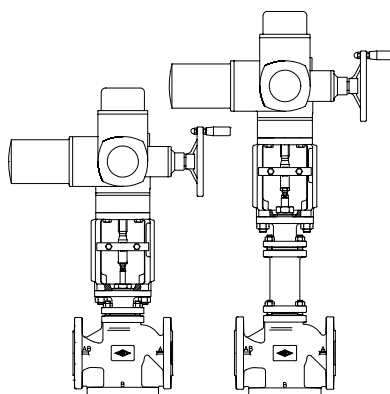
Fig. 451

**ARI-STEVI® 450 / 451**

**Electric actuator**

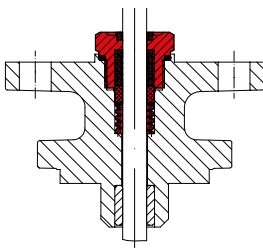
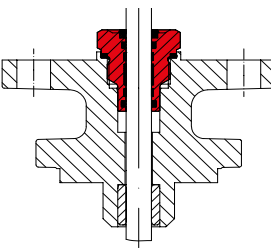
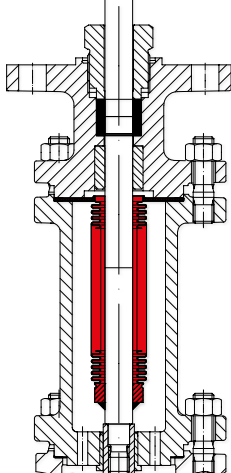
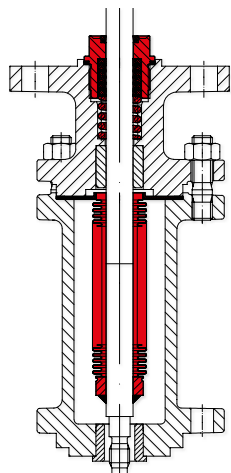
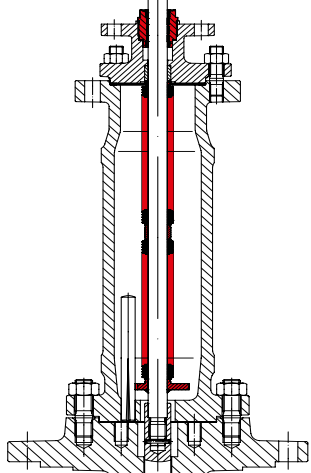
**AUMA SAR 07.2 - 14.2**

- Enclosure IP 68
- 2 torque switches
- 2 travel switches
- Handwheel
- Overheating protection for motor as standard
- Additional devices available, e.g. potentiometer
- Explosion proof version available



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| Figure                                   | Nominal pressure | Material | Nominal diameter | Information / restriction of technical rules need to be observed!                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------|------------------|----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12.450 / 12.451                          | PN16             | 5.1301   | DN15-100         | <p>ARI-Valves of 5.1301 are not allowed to be operated in systems acc. to TRD 110.</p> <p>A production permission acc. to TRB 801 No. 45 is available.<br/>(5.1301 acc. to TRB 801 No. 45 is not allowed.)</p> <p>The engineer, designing a system or a plant, is responsible for the selection of the correct valve.</p> <p>Resistance and fitness must be verified, contact manufacturer for information (refer to Product overview and Resistance list).</p> |
| 22.450 / 22.451                          | PN16             | 5.3103   | DN15-150         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 23.450 / 23.451                          | PN25             | 5.3103   | DN15-150         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 34.450 / 34.451                          | PN25             | 1.0619+N | DN15-150         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 35.450 / 35.451                          | PN40             | 1.0619+N | DN15-150         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 55.450 / 55.451                          | PN40             | 1.4408   | DN15-150         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Other materials and versions on request. |                  |          |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Stem sealing |                                                                                    |  |                                                                                                                           |
|--------------|------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|
| Fig. 450     | standard                                                                           |  | optional                                                                                                                  |
|              | DN15- 150                                                                          |  | DN15- 150                                                                                                                 |
|              |   |  |                                          |
|              | <b>I. PTFE-V-ring unit</b><br>-10°C to 220°C                                       |  | <b>I. EPDM-sealing</b><br>-10°C to 150°C<br>(allowed for water and steam up to 180°C)                                     |
| Fig. 451     | standard                                                                           |  | optional                                                                                                                  |
|              | DN15- 150                                                                          |  | DN15- 100                                                                                                                 |
|              |  |  |                                         |
|              | <b>III. Stainless steel-bellow with pure graphite-packing</b><br>-60°C to 450°C    |  | <b>III. Stainless steel-bellow with V-ring unit</b><br>-60°C to 220°C                                                     |
|              |                                                                                    |  | DN125-150                                                                                                                 |
|              |                                                                                    |  |                                       |
|              |                                                                                    |  | <b>III. Stainless steel bellows seal with EPDM-sealing</b><br>-60°C to 150°C<br>(allowed for water and steam up to 180°C) |

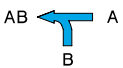
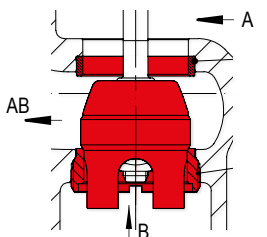
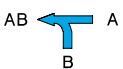
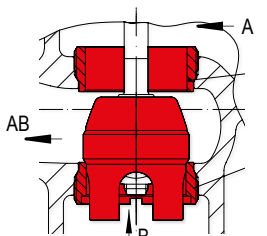
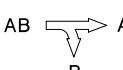
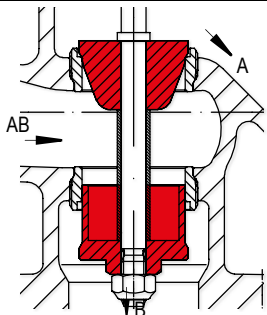
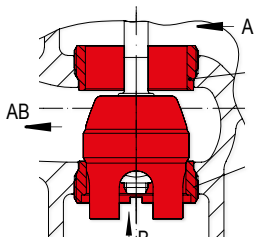
| Pressure-temperature-ratings | Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart. |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------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

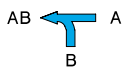
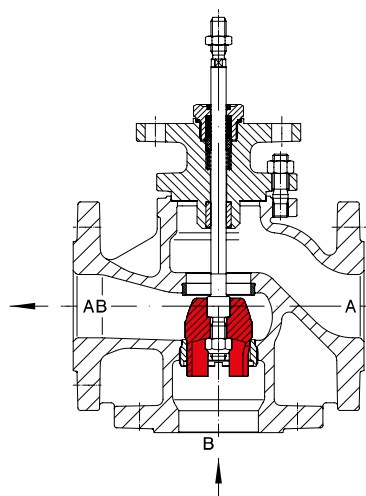
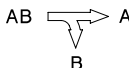
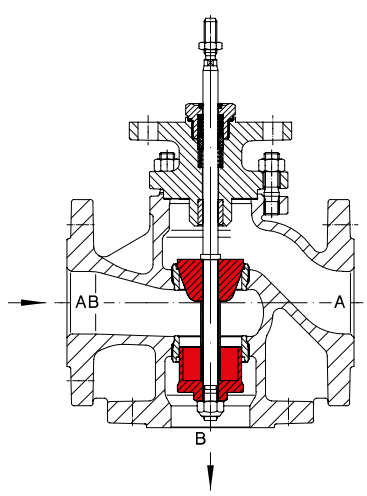
| acc. to DIN EN 1092-2 | -60°C to <-10°C <sup>1)</sup> | -10°C to 120°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|-----------------------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 5.1301 PN16 (bar)     | --                            | 16             | 14,4  | 12,8  | 11,2  | 9,6   | --    | --    | --    |
| 5.3103 PN16 (bar)     | on request                    | 16             | 15,5  | 14,7  | 13,9  | 12,8  | 11,2  | --    | --    |
| 5.3103 PN25 (bar)     | on request                    | 25             | 24,3  | 23    | 21,8  | 20    | 17,5  | --    | --    |

| acc. to manufacturers standard | -60°C to <-10°C <sup>1)</sup> | -10°C to 120°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|--------------------------------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.0619+N PN25 (bar)            | 18,7                          | 25             | 23,9  | 22    | 20    | 17,2  | 16    | 14,8  | 8,2   |
| 1.0619+N PN40 (bar)            | 30                            | 40             | 38,1  | 35    | 32    | 28    | 25,7  | 23,8  | 13,1  |

| acc. to DIN EN 1092-1 | -60°C to <-10°C <sup>1)</sup> | -10°C to 100°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|-----------------------|-------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.4408 PN40 (bar)     | 40                            | 40             | 36,3  | 33,7  | 31,8  | 29,7  | 28,5  | 27,4  | --    |

<sup>1)</sup> Valve with extended bonnet, studs and nuts made of A4-70 (at temperatures below -10°C)

| Plug design standard                                                                                                                                                                                                                        |                                                                                                                                  |                                                                                      | Guiding                | Rangeability |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------|--------------|
| <br><b>DN15-100:</b><br><b>Mixing plug with one rolled seat ring and one screwed seat ring</b><br>• Parabolic plug, metal seat;<br>V-port plug, metal seat | - Leakage class IV acc. to DIN EN 60534-4<br>- Flow characteristic: linear (lin) / linear (lin)                                  |    | Spindle /<br>Seat ring | 30 : 1       |
| <br><b>DN125-150 and stainless steel:</b><br><b>Mixing plug with two screwed seat rings</b><br>• Parabolic plug, metal seat;<br>V-port plug, metal seat    | - Leakage class IV acc. to DIN EN 60534-4<br>- Flow characteristic: linear (lin) / linear (lin)                                  |    | Spindle /<br>Seat ring | 30 : 1       |
| <br><b>DN40-150:</b><br><b>Diverting plug with two screwed seat rings</b><br>• Parabolic plug, metal seat;<br>V-port plug, metal seat                      | - Leakage class IV acc. to DIN EN 60534-4<br>- Flow characteristic: linear (lin) / linear (lin)                                  |    | Spindle /<br>Seat ring | 30 : 1       |
| Plug design optional                                                                                                                                                                                                                        |                                                                                                                                  |                                                                                      | Guiding                | Rangeability |
| <br><b>DN15-100:</b><br><b>Mixing plug with two screwed seat rings</b><br>• Parabolic plug, metal seat;<br>V-port plug, metal seat                       | - Leakage class IV acc. to DIN EN 60534-4<br>- Flow characteristic: linear (lin) / linear (lin)<br>- further reductions possible |  | Spindle /<br>Seat ring | 30 : 1       |

| Operation                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><br>Design with mixing plug DN 15-150 | <br><br>Design with diverting plug DN 40-150<br>(Attention: reduced Kvs-values) | <p>ARI-Control valves are suitable for use with pneumatic or electric actuators.</p> <p>According to the application two different variations are possible (see drawings on the left)</p> <p>Design with mixing plug as standard.</p> <p>Select when the valve is used for mixing service (2 inlets, 1 outlet).</p> <p>DN 15 - 32 with mixing plug can also be used for diverting service (1 inlet, 2 outlets).</p> <p>In exceptions the design with mixing plug can also be used in diverting service for DN ≥40. Only small closing pressures are possible.</p> <p>Design with diverting plug will be used exclusively for diverting service.</p> |

Control valve in 3-way-form with pneumatic actuator DP (3-way mixing valve / 3-way diverting valve)

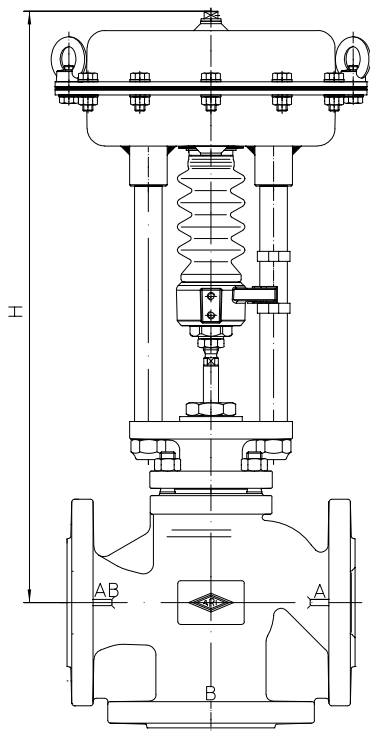


Fig. 450

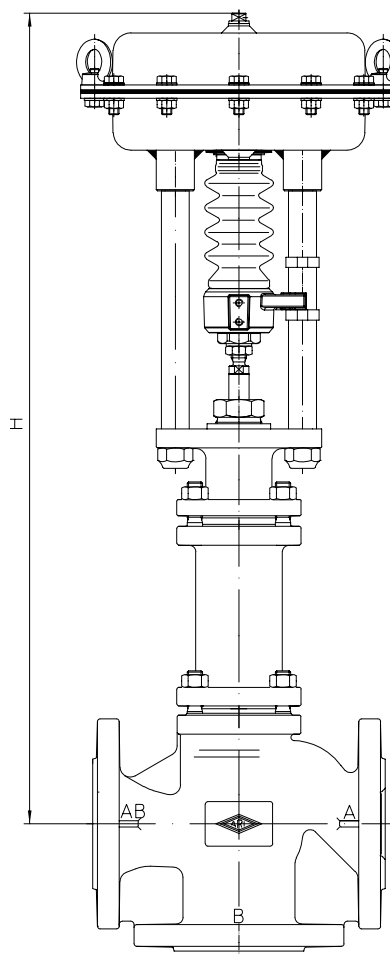
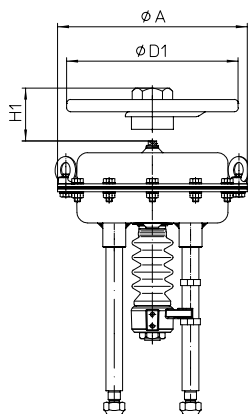


Fig. 451

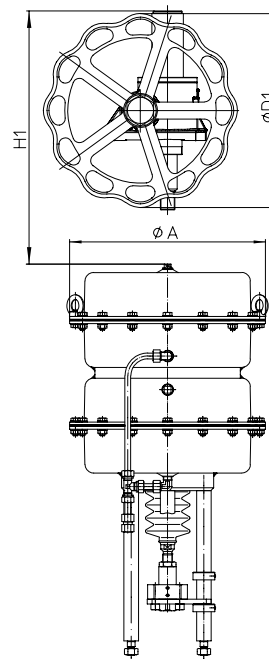
Heights and weights

| DN       |       |      |      | 15  | 20  | 25  | 32  | 40  | 50  | 65  | 80  | 100 | 125  | 150  |
|----------|-------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Fig. 450 | DP32  | H    | (mm) | 450 | 450 | 454 | 480 | 486 | 484 | 520 | 536 | 555 | 602  | --   |
|          |       | PN16 | (kg) | 14  | 15  | 16  | 19  | 22  | 26  | 33  | 39  | 56  | 76   | --   |
|          |       | PN40 | (kg) | 15  | 16  | 17  | 20  | 23  | 27  | 35  | 42  | 60  | 104  | --   |
|          | DP33  | H    | (mm) | 505 | 505 | 509 | 535 | 541 | 539 | 575 | 591 | 610 | 657  | 719  |
|          |       | PN16 | (kg) | 20  | 21  | 22  | 25  | 28  | 32  | 39  | 45  | 62  | 82   | 110  |
|          |       | PN40 | (kg) | 21  | 22  | 23  | 26  | 29  | 33  | 41  | 48  | 66  | 110  | 153  |
|          | DP34  | H    | (mm) | --  | --  | --  | --  | --  | --  | 710 | 726 | 745 | 772  | 834  |
|          |       | PN16 | (kg) | --  | --  | --  | --  | --  | --  | 69  | 75  | 92  | 112  | 140  |
|          |       | PN40 | (kg) | --  | --  | --  | --  | --  | --  | 71  | 78  | 96  | 140  | 183  |
|          | DP34T | H    | (mm) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 1062 | 1095 |
|          |       | PN16 | (kg) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 198  | 222  |
|          |       | PN40 | (kg) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 207  | 239  |
| Fig. 451 | DP32  | H    | (mm) | 635 | 635 | 639 | 665 | 655 | 649 | 755 | 768 | 784 | --   | --   |
|          |       | PN16 | (kg) | 17  | 18  | 19  | 22  | 27  | 30  | 39  | 49  | 66  | --   | --   |
|          |       | PN40 | (kg) | 18  | 19  | 20  | 23  | 28  | 32  | 42  | 52  | 72  | --   | --   |
|          | DP33  | H    | (mm) | 690 | 690 | 694 | 720 | 710 | 704 | 810 | 823 | 839 | 1012 | 1045 |
|          |       | PN16 | (kg) | 23  | 24  | 25  | 28  | 33  | 36  | 45  | 55  | 72  | 92   | 120  |
|          |       | PN40 | (kg) | 24  | 25  | 26  | 29  | 34  | 38  | 48  | 58  | 78  | 120  | 163  |
|          | DP34  | H    | (mm) | --  | --  | --  | --  | --  | --  | 945 | 958 | 974 | 1127 | 1160 |
|          |       | PN16 | (kg) | --  | --  | --  | --  | --  | --  | 75  | 85  | 102 | 122  | 150  |
|          |       | PN40 | (kg) | --  | --  | --  | --  | --  | --  | 78  | 88  | 108 | 150  | 193  |
|          | DP34T | H    | (mm) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 1509 | 1542 |
|          |       | PN16 | (kg) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 223  | 249  |
|          |       | PN40 | (kg) | --  | --  | --  | --  | --  | --  | --  | --  | --  | 234  | 267  |

Further dimensions refer to pages 16 - 17.



DP32 / DP33 / DP34



DP34T

| Actuator data                                                       |        |       | DP32 | DP33 | DP34 | DP34T |
|---------------------------------------------------------------------|--------|-------|------|------|------|-------|
| Ø A                                                                 |        | (mm)  | 250  | 300  | 405  |       |
| Effective diaphragm area                                            |        | (cm²) | 250  | 400  | 800  | 1600  |
| Top mounted handwheel                                               | Ø D1   | (mm)  | 225  | 300  | 400  |       |
|                                                                     | H1     | (mm)  | 270  | 284  | 442  | 635   |
|                                                                     | Weight | (kg)  | 5    |      | 17   | 41    |
| Air supply pressure max. to actuator: 6 bar                         |        |       |      |      |      |       |
| Further technical data of the actuator: refer to data sheet ARI-DP. |        |       |      |      |      |       |

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| DN                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                   |         |          |        |       | 15    | 20    | 25    | 32    | 40    | 50    | 65    | 80     | 100     | 125     | 150 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|-----|
| <div>ABA</div> <div>Mixing function</div>                                                                                                                                                                                                                                                                                                             | Kvs-value                         |         | standard | (m³/h) | 4     | 6,3   | 10    | 16    | 25    | 40    | 63    | 100   | 160    | 250     | 320     |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         | reduced  | (m³/h) | 2,5   | 4     | 6,3   | 10    | 16    | 25    | 40    | 63    | 100    | 160     | 250     |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        | max. diff. pressure <sup>1)</sup> |         |          | (bar)  | 40    |       |       |       | 30    |       |       | 25    |        | 15      |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        | Seat-Ø A/B                        |         |          | (mm)   | 21/20 | 21/25 | 27/27 | 31/32 | 41/40 | 51/50 | 66/60 | 81/75 | 101/95 | 120/120 | 140/140 |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        | Travel                            |         |          | (mm)   | 20    |       |       |       |       |       | 30    |       |        | 50      |         |     |
| <div>DP32<br/>250 cm²</div> <div>Spring closes<br/>A → AB<br/>on air failure</div> <div></div> <div>(stem retracting<br/>by spring)</div> <div>or</div> <div>Spring closes<br/>B → AB<br/>on air failure</div> <div></div> <div>(stem extending<br/>by spring)</div> | Spring range (bar)                | 0,4-1,2 | 1,6      | I.     | (bar) | 18,6  | 12,6  | 10,7  | 7,2   | 3,9   | 2,2   |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | II.    | (bar) | 15,4  | 10,3  | 8,7   | 5,8   | 3     | 1,6   |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | III.   | (bar) | 8,6   | 8     | 7,1   | 4,6   | 1,7   |       |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   | 0,8-2,4 | 3,2      | I.     | (bar) | 40    | 31,4  | 26,8  | 18,8  | 11    | 6,8   | 3,7   | 2,2    | 1,2     |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | II.    | (bar) | 40    | 29,1  | 24,8  | 17,4  | 10,2  | 6,3   | 3,2   | 1,9    | 1       |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | III.   | (bar) | 26,4  | 25,7  | 23,2  | 16,2  | 8,9   | 5,4   | 2,9   | 1,7    |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   | 1,5-2,9 | 4,4      | I.     | (bar) |       | 40    | 40    | 39,1  | 23,5  | 15    |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | II.    | (bar) |       | 40    | 40    | 37,7  | 22,7  | 14,4  |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | III.   | (bar) | 40    | 40    | 40    | 36,5  | 21,4  | 13,6  |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   | 2,0-3,8 | 5,8      | I.     | (bar) |       |       |       | 40    | 32,5  | 20,8  |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | II.    | (bar) |       |       |       | 40    | 31,6  | 20,2  |       |        |         |         |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |         |          | III.   | (bar) |       |       |       | 40    | 30,3  | 19,4  |       |        |         |         |     |

| DN                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |          |        |       | 15                        | 20    | 25    | 32    | 40    | 50    | 65    | 80    | 100   | 125     | 150     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|--------|-------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        |       | mixing plug for diverting |       |       |       |       |       |       |       |       |         |         |  |
| <div>AB<div><div></div><div></div><div></div></div>A</div> <div>B</div> <div>Diverting function</div>                                                                                                                                                                                                                                                                                                                                                                         | Kvs-value                         | standard | (m³/h) | 4     | 6,3                       | 10    | 16    | 14    | 25    | 45    | 60    | 95    | 170   | 200     |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | reduced  | (m³/h) | 2,5   | 4                         | 6,3   | 10    |       |       |       |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | max. diff. pressure <sup>1)</sup> |          |        | (bar) | 40                        |       |       |       | 30    |       | 25    |       | 15    |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Seat-Ø A/B                        |          |        | (mm)  | 21/20                     | 21/25 | 27/27 | 31/32 | 40/40 | 50/50 | 60/60 | 75/75 | 90/90 | 105/105 | 125/125 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Travel                            |          |        | (mm)  | 20                        |       |       |       |       | 30    |       |       |       |         |         |  |
| <div>DP32</div> <div>250 cm²</div> <div>Spring closes</div> <div>AB -&gt; A</div> <div>on air failure</div> <div></div> <div>(stem extending by spring)</div> <div>or</div> <div>Spring closes</div> <div>AB -&gt; B</div> <div>on air failure</div> <div></div> <div>(stem retracting by spring)</div> | Spring range (bar)                | 0,2-1,0  | 1,2    | I.    | (bar)                     | 2,7   | 1,6   | 1,3   |       |       |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | II.   | (bar)                     | 1,1   |       |       |       |       |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | III.  | (bar)                     |       |       |       |       |       |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | 0,4-1,2  | 1,6    | I.    | (bar)                     | 9,3   | 6,3   | 5,3   | 3,6   | 4,1   | 2,3   | 1,2   |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | II.   | (bar)                     | 7,7   | 5,2   | 4,3   | 2,9   | 3,2   | 1,7   |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | III.  | (bar)                     | 4,3   | 4     | 3,5   | 2,3   | 1,9   |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | 0,8-2,4  | 3,2    | I.    | (bar)                     | 22,5  | 15,7  | 13,4  | 9,4   | 11,6  | 7,1   | 4,5   | 2,7   | 1,7     | 1,1     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | II.   | (bar)                     | 20,8  | 14,5  | 12,4  | 8,7   | 10,6  | 6,5   | 4     | 2,3   | 1,4     |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | III.  | (bar)                     | 13,2  | 12,9  | 11,6  | 8,1   | 9,3   | 5,6   | 3,7   | 2,1   | 1,3     |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | 1,5-2,9  | 4,4    | I.    | (bar)                     | 40    | 32,1  | 27,5  | 19,6  | 24,5  | 15,4  |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | II.   | (bar)                     | 40    | 30,9  | 26,5  | 18,8  | 23,6  | 14,8  |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          |        | III.  | (bar)                     | 28,7  | 28,4  | 25,7  | 18,3  | 22,3  | 14    |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2,0-3,8                           | 5,8      | I.     | (bar) |                           | 40    | 37,6  | 26,8  | 33,8  | 21,4  |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          | II.    | (bar) |                           | 40    | 36,6  | 26,1  | 32,9  | 20,8  |       |       |       |         |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |          | III.   | (bar) | 39,8                      | 39,5  | 35,8  | 25,5  | 31,6  | 19,9  |       |       |       |         |         |  |

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

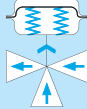
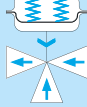
II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Air supply pressure max. to actuator: 6 bar      Restriction: a) 5 bar    b) 4,5 bar    c) 4 bar    d) 3,5 bar    e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| DN                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |                                              |              | 15    | 20    | 25                   | 32                   | 40                   | 50                   | 65                   | 80                   | 100                 | 125               | 150               |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------|--------------|-------|-------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|-------------------|-------------------|--|--|--|
| <div>ABA</div> <div>Mixing function</div>                                                                                                                                                                                                                                                                                                                                                | Kvs-value                         | standard                                     | (m³/h)       | 4     | 6,3   | 10                   | 16                   | 25                   | 40                   | 63                   | 100                  | 160                 | 250               | 320               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   | reduced                                      | (m³/h)       | 2,5   | 4     | 6,3                  | 10                   | 16                   | 25                   | 40                   | 63                   | 100                 | 160               | 250               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | max. diff. pressure <sup>1)</sup> |                                              | (bar)        | 40    |       |                      |                      | 30                   |                      |                      | 25                   |                     | 15                |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Seat-Ø A/B                        |                                              | (mm)         | 21/20 | 21/25 | 27/27                | 31/32                | 41/40                | 51/50                | 66/60                | 81/75                | 101/95              | 120/120           | 140/140           |  |  |  |
| Travel                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                   | (mm)                                         | 20           |       |       |                      |                      |                      | 30                   |                      |                      | 50                  |                   |                   |  |  |  |
| <div>DP33</div> <div>400 cm²</div> <div>Spring closes</div> <div>A -&gt; AB</div> <div>on air failure</div> <div></div> <div>(stem retracting by spring)</div> <div>or</div> <div>Spring closes</div> <div>B -&gt; AB</div> <div>on air failure</div> <div></div> <div>(stem extending by spring)</div> | Spring range (bar)                | Air supply pressure min. (bar) <sup>2)</sup> | 1,2          | I.    | (bar) | 13,3 c <sup>3)</sup> | 8,8 c <sup>3)</sup>  | 7,4 c <sup>3)</sup>  | 4,9 c <sup>3)</sup>  | 2,4 c <sup>3)</sup>  | 1,2 c <sup>3)</sup>  |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) | 10,1 c <sup>3)</sup> | 6,5 c <sup>3)</sup>  | 5,4 c <sup>3)</sup>  | 3,4 c <sup>3)</sup>  | 1,6 c <sup>3)</sup>  |                      |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) | 5 a <sup>3)</sup>    | 4,3 a <sup>3)</sup>  | 3,8 a <sup>3)</sup>  | 2,2 a <sup>3)</sup>  |                      |                      |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              | 1,6          | I.    | (bar) | 34,2 c <sup>3)</sup> | 23,7 c <sup>3)</sup> | 20,2 c <sup>3)</sup> | 14,1 c <sup>3)</sup> | 8,1 c <sup>3)</sup>  | 4,9 c <sup>3)</sup>  | 2,5 <sup>3)</sup>   | 1,4 <sup>3)</sup> |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) | 31 c <sup>3)</sup>   | 21,4 c <sup>3)</sup> | 18,3 c <sup>3)</sup> | 12,7 c <sup>3)</sup> | 7,3 c <sup>3)</sup>  | 4,4 c <sup>3)</sup>  | 2,1 <sup>3)</sup>   | 1,1 <sup>3)</sup> |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) | 19,1 a <sup>3)</sup> | 18,5 a <sup>3)</sup> | 16,6 a <sup>3)</sup> | 11,5 a <sup>3)</sup> | 5,9 a <sup>3)</sup>  | 3,5 a <sup>3)</sup>  | 1,8 a <sup>3)</sup> |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              | 3,2          | I.    | (bar) | 40 a <sup>3)</sup>   | 40 a <sup>3)</sup>   | 40 a <sup>3)</sup>   | 32,5 a <sup>3)</sup> | 19,5 a <sup>3)</sup> | 12,3 a <sup>3)</sup> | 7 <sup>3)</sup>     | 4,4 <sup>3)</sup> | 2,6 <sup>3)</sup> |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) | 40 a <sup>3)</sup>   | 40 a <sup>3)</sup>   | 40 a <sup>3)</sup>   | 31,1 a <sup>3)</sup> | 18,6 a <sup>3)</sup> | 11,8 a <sup>3)</sup> | 6,5 <sup>3)</sup>   | 4,1 <sup>3)</sup> | 2,4 <sup>3)</sup> |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) | 40 <sup>3)</sup>     | 40 <sup>3)</sup>     | 40 <sup>3)</sup>     | 29,9 <sup>3)</sup>   | 17,3 <sup>3)</sup>   | 10,9 <sup>3)</sup>   | 6,2 <sup>3)</sup>   | 3,9 <sup>3)</sup> | 2,3 <sup>3)</sup> |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              | 4,5          | I.    | (bar) |                      |                      |                      |                      |                      |                      | 14,8                | 9,6               | 6                 |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) |                      |                      |                      |                      |                      |                      | 14,3                | 9,3               | 5,8               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) |                      |                      |                      |                      |                      |                      | 14                  | 9,1               | 5,7               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              | 4,4          | I.    | (bar) |                      |                      |                      | 40 a                 | 40 a                 | 29 a                 |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) |                      |                      |                      | 40 a                 | 40 a                 | 28,4 a               |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) |                      |                      |                      | 40                   | 40                   | 27,6                 |                     |                   |                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              | 6,0<br>(6,0) | I.    | (bar) |                      |                      |                      |                      |                      | (40)                 | 20,3                | 13,3              | 8,4               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | II.   | (bar) |                      |                      |                      |                      |                      | (39,5)               | 19,9                | 12,9              | 8,2               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                              |              | III.  | (bar) |                      |                      |                      |                      |                      | (38,7)               | 19,6                | 12,8              | 8,1               |  |  |  |

| DN                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |                                               |                      |      | 15                        | 20                   | 25                   | 32                   | 40                   | 50                   | 65                   | 80                  | 100                 | 125               | 150               |                   |     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------|----------------------|------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|-------------------|-------------------|-------------------|-----|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      |      | mixing plug for diverting |                      |                      |                      |                      |                      |                      |                     |                     |                   |                   |                   |     |  |
| <div>AB<div><div></div><div></div><div></div></div>A</div>                                                                                                                                                                                                                                                                                                                                                                                                                    | Kvs-value                         | standard                                      |                      |      | (m³/h)                    | 4                    | 6,3                  | 10                   | 16                   | 14                   | 25                   | 45                  | 60                  | 95                | 170               | 200               |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   | reduced                                       |                      |      | (m³/h)                    | 2,5                  | 4                    | 6,3                  | 10                   |                      |                      |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | max. diff. pressure <sup>1)</sup> |                                               |                      |      | (bar)                     | 40                   |                      |                      |                      | 30                   |                      |                     | 25                  |                   | 15                |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Seat-Ø A/B                        |                                               |                      |      | (mm)                      | 21/20                | 21/25                | 27/27                | 31/32                | 40/40                | 50/50                | 60/60               | 75/75               | 90/90             | 105/105           | 125/125           |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Travel                            |                                               |                      |      | (mm)                      | 20                   |                      |                      |                      |                      |                      | 30                  |                     |                   |                   |                   |     |  |
| <div>DP33</div> <div>400 cm²</div> <div>Spring closes</div> <div>AB -&gt; A</div> <div>on air failure</div> <div></div> <div>(stem extending by spring)</div> <div>or</div> <div>Spring closes</div> <div>AB -&gt; B</div> <div>on air failure</div> <div></div> <div>(stem retracting by spring)</div> | Spring range (bar)                | Air supply pressure min. (bar <sup>2)</sup> ) | 1,2                  | I.   | (bar)                     | 6,6 c <sup>4)</sup>  | 4,4 c <sup>4)</sup>  | 3,7 c <sup>4)</sup>  | 2,4 c <sup>4)</sup>  | 2,6 c <sup>4)</sup>  | 1,3 c <sup>4)</sup>  |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     | 5 c <sup>4)</sup>    | 3,3 c <sup>4)</sup>  | 2,7 c <sup>4)</sup>  | 1,7 c <sup>4)</sup>  | 1,7 c <sup>4)</sup>  |                      |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     | 2,5 a <sup>4)</sup>  | 2,2 a <sup>4)</sup>  | 1,9 a <sup>4)</sup>  | 1,1 a <sup>4)</sup>  |                      |                      |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               | 0,4-1,2              | I.   | (bar)                     | 17,1 c <sup>4)</sup> | 11,9 c <sup>4)</sup> | 10,1 c <sup>4)</sup> | 7 c <sup>4)</sup>    | 8,5 c <sup>4)</sup>  | 5,1 c <sup>4)</sup>  | 3,2 <sup>4)</sup>   | 1,8 <sup>4)</sup>   | 1,1 <sup>4)</sup> |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     | 15,5 c <sup>4)</sup> | 10,7 c <sup>4)</sup> | 9,1 c <sup>4)</sup>  | 6,3 c <sup>4)</sup>  | 7,6 c <sup>4)</sup>  | 4,5 c <sup>4)</sup>  | 2,6 <sup>4)</sup>   | 1,4 <sup>4)</sup>   |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     | 9,6 a <sup>4)</sup>  | 9,2 a <sup>4)</sup>  | 8,3 a <sup>4)</sup>  | 5,7 a <sup>4)</sup>  | 6,3 a <sup>4)</sup>  | 3,6 a <sup>4)</sup>  | 2,3 a <sup>4)</sup> | 1,2 a <sup>4)</sup> |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               | 0,8-2,4              | I.   | (bar)                     | 38 a <sup>4)</sup>   | 26,8 a <sup>4)</sup> | 23 a <sup>4)</sup>   | 16,3 a <sup>4)</sup> | 20,3 a <sup>4)</sup> | 12,7 a <sup>4)</sup> | 8,5 <sup>4)</sup>   | 5,2 <sup>4)</sup>   | 3,5 <sup>4)</sup> | 2,4 <sup>4)</sup> | 1,6 <sup>4)</sup> |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     | 36,4 a <sup>4)</sup> | 25,6 a <sup>4)</sup> | 22 a <sup>4)</sup>   | 15,6 a <sup>4)</sup> | 19,4 a <sup>4)</sup> | 12,1 a <sup>4)</sup> | 8 <sup>4)</sup>     | 4,9 <sup>4)</sup>   | 3,2 <sup>4)</sup> | 2,2 <sup>4)</sup> | 1,4 <sup>4)</sup> |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     | 23,7 <sup>4)</sup>   | 23,4 <sup>4)</sup>   | 21,2 <sup>4)</sup>   | 15 <sup>4)</sup>     | 18,1 <sup>4)</sup>   | 11,3 <sup>4)</sup>   | 7,6 <sup>4)</sup>   | 4,7 <sup>4)</sup>   | 3,1 <sup>4)</sup> | 1,9 <sup>4)</sup> | 1,2 <sup>4)</sup> |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               | 1,5-3,0              | I.   | (bar)                     |                      |                      |                      |                      |                      |                      |                     | 17,9                | 11,2              | 7,7               | 5,4               | 3,7 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     |                      |                      |                      |                      |                      |                      |                     | 17,3                | 10,9              | 7,4               | 5,2               | 3,6 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     |                      |                      |                      |                      |                      |                      |                     | 17                  | 10,7              | 7,3               | 5                 | 3,4 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               | 1,7-2,7              | I.   | (bar)                     | 40 a                 | 40 a                 | 40 a                 | 37 a                 | 40 a                 | 29,8 a               |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     | 40 a                 | 40 a                 | 40 a                 | 36,3 a               | 40 a                 | 29,3 a               |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     | 40                   | 40                   | 40                   | 35,7                 | 40                   | 28,4                 |                     |                     |                   |                   |                   |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               | 2,0-4,0<br>(2,3-3,7) | I.   | (bar)                     |                      |                      |                      | (40)                 | (40)                 | (40)                 | 24,5                | 15,5                | 10,7              | 7,6               | 5,3               |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | II.  | (bar)                     |                      |                      |                      | (40)                 | (40)                 | (40)                 | 24                  | 15,2                | 10,4              | 7,4               | 5,1               |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                               |                      | III. | (bar)                     |                      |                      |                      | (40)                 | (40)                 | (39,8)               | 23,6                | 15                  | 10,3              | 7,2               | 5                 |     |  |

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Air supply pressure max. to actuator: 6 bar Restriction: a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

<sup>3)</sup> At mixing function an spring closes direction A→AB, the max. permissible air supply pressure is 3,5 bar.

<sup>4)</sup> At diverting function an spring closes direction B→AB, the max. permissible air supply pressure is 3,5 bar.

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| DN                                                                                                                                                                                                                                                                                                                                                                                                |                                   |                                              |            | 65         | 80       | 100     | 125     | 150     |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------|------------|------------|----------|---------|---------|---------|---------|
| <div>ABA<br/>B<br/><b>Mixing function</b></div>                                                                                                                                                                                                                                                                  | Kvs-value                         |                                              | standard   | (m³/h)     | 63       | 100     | 160     | 250     | 320     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | reduced    | (m³/h)     | 40       | 63      | 100     | 160     | 250     |
|                                                                                                                                                                                                                                                                                                                                                                                                   | max. diff. pressure <sup>1)</sup> |                                              |            | (bar)      | 30       | 25      |         | 15      |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   | Seat-Ø A/B                        |                                              |            | (mm)       | 66/60    | 81/75   | 101/95  | 120/120 | 140/140 |
|                                                                                                                                                                                                                                                                                                                                                                                                   | Travel                            |                                              |            | (mm)       | 30       |         |         | 50      |         |
| <div><b>DP34</b><br/><b>800 cm²</b><br/><b>Spring closes A -&gt; AB on air failure</b><br/><br/>(stem retracting by spring)<br/>or<br/><b>Spring closes B -&gt; AB on air failure</b><br/><br/>(stem extending by spring)</div> | Spring range (bar)                | Air supply pressure min. (bar) <sup>2)</sup> | 1,2        | I. (bar)   | 2,5 b)   | 1,5 b)  |         |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | II. (bar)  | 2,1 b)   | 1,2 b)  |         |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | III. (bar) | 1,8 e)   | 1 e)    |         |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 1,6        | I. (bar)   | 7 b)     | 4,4 b)  | 2,7 b)  | 1,8     | 1,2     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | II. (bar)  | 6,6 b)   | 4,1 b)  | 2,5 b)  | 1,6     | 1,1     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | III. (bar) | 6,3 d)   | 3,9 d)  | 2,3 d)  | 1,4 a)  |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 3,2        | I. (bar)   | 16       | 10,4    | 6,5     | 4,5     | 3,2     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | II. (bar)  | 15,5     | 10,1    | 6,3     | 4,3     | 3,1     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | III. (bar) | 15,2 b)  | 9,9 b)  | 6,2 b)  | 4,1     | 3       |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 4,5        | I. (bar)   |          |         |         | 9,3     | 6,7     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | II. (bar)  |          |         |         | 9,1     | 6,6     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | III. (bar) |          |         |         | 8,9     | 6,5     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 4,9        | III. (bar) | 40       | 27,7 a) | 17,7 a) |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | I. (bar)   | 40       | 29,7    | 19      |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 5,1        | II. (bar)  | 40       | 29,4    | 18,8    |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | I. (bar)   |          |         |         | 12,7    | 9,2     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | 6,0        | II. (bar)  |          |         |         | 12,5    | 9,1     |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | III. (bar) |          |         |         | 12,3    | 9       |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              |            | 6,0        | I. (bar) |         | 34,2    | 21,9    |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | II. (bar)  |            |          | 33,9    | 21,7    |         |         |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                              | III. (bar) |            |          |         |         |         |         |

| DN                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                   |                                              |          | 65    |        | 80      |          | 100      |      | 125    |    | 150     |     |         |     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------|----------|-------|--------|---------|----------|----------|------|--------|----|---------|-----|---------|-----|--|
| <div>AB<div><div></div><div></div><div></div></div>A</div> <div>B</div> <div>Diverting function</div>                                                                                                                                                                                                                                                                                                                                                                         | Kvs-value                         |                                              | standard |       | (m³/h) |         | 45       |          | 60   |        | 95 |         | 170 |         | 200 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              | reduced  |       | (m³/h) |         |          |          |      |        |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | max. diff. pressure <sup>1)</sup> |                                              |          | (bar) |        | 30      |          | 25       |      |        |    | 15      |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Seat-Ø A/B                        |                                              |          | (mm)  |        | 60/60   |          | 75/75    |      | 90/90  |    | 105/105 |     | 125/125 |     |  |
| Travel                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                   |                                              | (mm)     |       | 30     |         |          |          |      |        |    |         |     |         |     |  |
| <div>DP34</div> <div>800 cm²</div> <div>Spring closes</div> <div>AB -&gt; A</div> <div>on air failure</div> <div></div> <div>(stem extending by spring)</div> <div>or</div> <div>Spring closes</div> <div>AB -&gt; B</div> <div>on air failure</div> <div></div> <div>(stem retracting by spring)</div> | Spring range (bar)                | Air supply pressure min. (bar) <sup>2)</sup> | 1,2      | I.    | (bar)  | 3,2 b)  | 1,8 b)   | 1,1 b)   |      |        |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | II.   | (bar)  | 2,7 b)  | 1,5 b)   |          |      |        |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | III.  | (bar)  | 2,3 e)  | 1,2 e)   |          |      |        |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              | 1,6      | I.    | (bar)  | 8,6 b)  | 5,3 b)   | 3,5 b)   | 2,4  | 1,6    |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | II.   | (bar)  | 8 b)    | 4,9 b)   | 3,2 b)   | 2,2  | 1,4    |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | III.  | (bar)  | 7,7 d)  | 4,7 d)   | 3,1 d)   | 2 a) | 1,3 a) |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              | 3,2      | I.    | (bar)  | 19,3    | 12,2     | 8,3      | 5,9  | 4,1    |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | II.   | (bar)  | 18,8    | 11,8     | 8,1      | 5,7  | 3,9    |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | III.  | (bar)  | 18,4 b) | 11,6 b)  | 7,9 b)   | 5,5  | 3,8    |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              | 5,1      | I.    | (bar)  | 40      | 34,7     | 24       | 17,4 | 12,2   |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | II.   | (bar)  | 40      | 34,3     | 23,8     | 17,2 | 12     |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | III.  | (bar)  | 40 a)*  | 32,4 a)* | 22,4 a)* | 16,9 | 11,9   |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              | 6,0      | I.    | (bar)  |         | 39,9     | 27,6     | 20   | 14,1   |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | II.   | (bar)  |         | 39,5     | 27,4     | 19,8 | 13,9   |    |         |     |         |     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                   |                                              |          | III.  | (bar)  |         |          |          | 19,6 | 13,8   |    |         |     |         |     |  |

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Air supply pressure max. to actuator: 6 bar      Restriction: a) 5 bar    b) 4,5 bar    c) 4 bar    d) 3,5 bar    e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| DN                                                                                                                                                                                                     |                                   |         |          |            | 125     | 150     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------|----------|------------|---------|---------|
| <br><b>Mixing function</b>                                                                                                                                                                             | Kvs-value                         |         | standard | (m³/h)     | 250     | 320     |
|                                                                                                                                                                                                        |                                   |         | reduced  | (m³/h)     | 160     | 250     |
|                                                                                                                                                                                                        | max. diff. pressure <sup>1)</sup> |         |          | (bar)      | 15      |         |
|                                                                                                                                                                                                        | Seat-Ø A/B                        |         |          | (mm)       | 120/120 | 140/140 |
|                                                                                                                                                                                                        | Travel                            |         |          | (mm)       | 50      |         |
| <b>DP34T</b><br><b>1600 cm²</b><br><b>Spring closes A → AB on air failure</b><br><br>(stem retracting by spring)<br>or<br><b>Spring closes B → AB on air failure</b><br><br>(stem extending by spring) | Spring range (bar)                | 0,2-1,0 | 1,2      | I. (bar)   | 1,7     | 1,2     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 1,4     | --      |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 1,3 a)  | --      |
|                                                                                                                                                                                                        |                                   |         | 1,6      | I. (bar)   | 4,5     | 3,2     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 4,1     | 2,9     |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 4 a)    | 2,9 a)  |
|                                                                                                                                                                                                        |                                   | 0,8-2,4 | 3,2      | I. (bar)   | 9,9     | 7,2     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 9,6     | 7       |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 9,5     | 6,9     |
|                                                                                                                                                                                                        |                                   | 1,5-3,0 | 4,5      | I. (bar)   | 19,5    | 14,3    |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 19,1    | 14      |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 19      | 13,9    |
|                                                                                                                                                                                                        |                                   | 2,0-4,0 | 6,0      | I. (bar)   | 26,3    | 19,3    |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 26      | 19      |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 25,9    | 18,9    |

| DN                                                                                                                                                                                                     |                                   |         |          |            | 125     | 150     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------|----------|------------|---------|---------|
| <br><b>Diverting function</b>                                                                                                                                                                          | Kvs-value                         |         | standard | (m³/h)     | 170     | 200     |
|                                                                                                                                                                                                        |                                   |         | reduced  | (m³/h)     |         |         |
|                                                                                                                                                                                                        | max. diff. pressure <sup>1)</sup> |         |          | (bar)      | 15      |         |
|                                                                                                                                                                                                        | Seat-Ø A/B                        |         |          | (mm)       | 105/105 | 125/125 |
|                                                                                                                                                                                                        | Travel                            |         |          | (mm)       | 30      |         |
| <b>DP34T</b><br><b>1600 cm²</b><br><b>Spring closes AB → A on air failure</b><br><br>(stem extending by spring)<br>or<br><b>Spring closes AB → B on air failure</b><br><br>(stem retracting by spring) | Spring range (bar)                | 0,2-1,0 | 1,2      | I. (bar)   | 2,4     | 1,6     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 1,9     | 1,2     |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 1,8 a)  | 1,1 a)  |
|                                                                                                                                                                                                        |                                   |         | 1,6      | I. (bar)   | 5,9     | 4,1     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 5,5     | 3,7     |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 5,3 a)  | 3,6 a)  |
|                                                                                                                                                                                                        |                                   | 0,8-2,4 | 3,2      | I. (bar)   | 12,9    | 9,1     |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 12,5    | 8,7     |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 12,4    | 8,6     |
|                                                                                                                                                                                                        |                                   | 2,1-3,0 | 5,1      | I. (bar)   | 35,9    | 25,3    |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 35,4    | 25      |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 35,3    | 24,9    |
|                                                                                                                                                                                                        |                                   | 2,4-3,6 | 6,0      | I. (bar)   | 40      | 29      |
|                                                                                                                                                                                                        |                                   |         |          | II. (bar)  | 40      | 28,7    |
|                                                                                                                                                                                                        |                                   |         |          | III. (bar) | 40      | 28,6    |

I. Fig. 450: EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Air supply pressure max. to actuator: 6 bar      Restriction: a) 5 bar    b) 4,5 bar    c) 4 bar    d) 3,5 bar    e) 3 bar

## Control valve in 3-way-form with electric actuator ARI-PREMIO (3-way mixing valve / 3-way diverting valve)

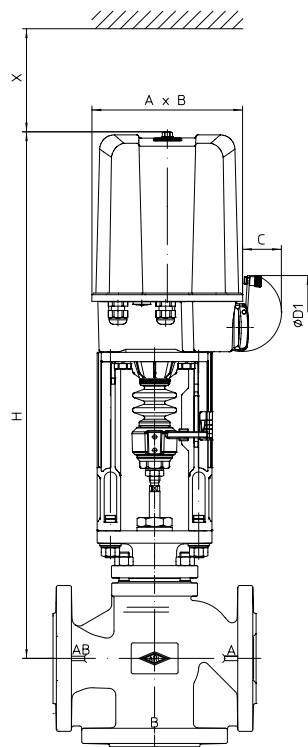


Fig. 450

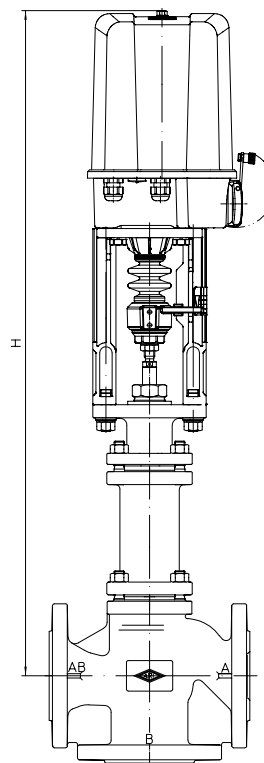


Fig. 451

| Actuator data |      | 2,2 - 5 kN | 12 - 25 kN |
|---------------|------|------------|------------|
| A             | (mm) | 171        | 210        |
| B             | (mm) | 156        | 184        |
| C             | (mm) | 50         | 90         |
| Ø D1          | (mm) | 90         | 130        |
| X             | (mm) | 150        | 200        |

Further technical data of the actuator: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

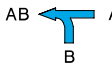
### Heights and weights

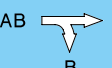
| DN       |                |      |      | 15  | 20   | 25   | 32   | 40   | 50  | 65   | 80   | 100  | 125  | 150  |
|----------|----------------|------|------|-----|------|------|------|------|-----|------|------|------|------|------|
| Fig. 450 | 2,2 kN         | H    | (mm) | 559 | 559  | 563  | 589  | 595  | 593 | 629  | 645  | 664  | 731  | --   |
|          |                | PN16 | (kg) | 11  | 12   | 13   | 15   | 18   | 22  | 29   | 35   | 52   | 73   | --   |
|          |                | PN40 | (kg) | 11  | 12   | 13   | 16   | 20   | 24  | 31   | 38   | 56   | 100  | --   |
|          | 5 kN           | H    | (mm) | 559 | 559  | 563  | 589  | 595  | 593 | 629  | 645  | 664  | 731  | 793  |
|          |                | PN16 | (kg) | 12  | 13   | 14   | 16   | 20   | 23  | 30   | 37   | 53   | 74   | 101  |
|          |                | PN40 | (kg) | 12  | 13   | 14   | 17   | 21   | 25  | 32   | 39   | 57   | 101  | 144  |
|          | 12 kN<br>15 kN | H    | (mm) | --  | --   | 737  | 763  | 769  | 767 | 803  | 819  | 838  | 885  | 947  |
|          |                | PN16 | (kg) | --  | --   | 18   | 20   | 24   | 27  | 34   | 41   | 57   | 78   | 105  |
|          |                | PN40 | (kg) | --  | --   | 18   | 21   | 25   | 29  | 36   | 43   | 61   | 105  | 148  |
|          | 25 kN          | H    | (mm) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 885  | 947  |
|          |                | PN16 | (kg) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 79   | 106  |
|          |                | PN40 | (kg) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 106  | 149  |
| Fig. 451 | 2,2 kN         | H    | (mm) | 744 | 744  | 748  | 774  | 764  | 758 | 864  | 877  | 893  | --   | --   |
|          |                | PN16 | (kg) | 14  | 15   | 16   | 18   | 23   | 26  | 35   | 45   | 63   | --   | --   |
|          |                | PN40 | (kg) | 14  | 15,3 | 16,6 | 19,2 | 24,5 | 28  | 37,9 | 48,7 | 68   | --   | --   |
|          | 5 kN           | H    | (mm) | 744 | 744  | 748  | 774  | 764  | 758 | 864  | 877  | 893  | 1086 | 1119 |
|          |                | PN16 | (kg) | 15  | 16   | 17   | 19   | 24   | 27  | 36   | 46   | 64   | 84   | 111  |
|          |                | PN40 | (kg) | 15  | 16   | 18   | 20   | 25,6 | 29  | 39   | 50   | 69   | 112  | 155  |
|          | 12 kN<br>15 kN | H    | (mm) | --  | --   | 922  | 948  | 938  | 932 | 1038 | 1051 | 1067 | 1240 | 1273 |
|          |                | PN16 | (kg) | --  | --   | 21   | 23   | 28   | 31  | 40   | 50   | 68   | 88   | 115  |
|          |                | PN40 | (kg) | --  | --   | 22   | 24   | 30   | 33  | 43   | 54   | 73   | 116  | 159  |
|          | 25 kN          | H    | (mm) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 1240 | 1273 |
|          |                | PN16 | (kg) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 89   | 116  |
|          |                | PN40 | (kg) | --  | --   | --   | --   | --   | --  | --   | --   | --   | 117  | 160  |

Further dimensions refer to pages 16 - 17.



max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| DN                                                                                                   |                                   |          |        | 15    | 20    | 25    | 32    | 40    | 50    | 65    | 80    | 100    | 125     | 150     |
|------------------------------------------------------------------------------------------------------|-----------------------------------|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|
| <br>Mixing function | Kvs-value                         | standard | (m³/h) | 4     | 6,3   | 10    | 16    | 25    | 40    | 63    | 100   | 160    | 250     | 320     |
|                                                                                                      |                                   | reduced  | (m³/h) | 2,5   | 4     | 6,3   | 10    | 16    | 25    | 40    | 63    | 100    | 160     | 250     |
|                                                                                                      | max. diff. pressure <sup>1)</sup> |          | (bar)  | 40    |       |       |       | 30    |       |       |       | 25     |         | 15      |
|                                                                                                      | Seat-Ø A/B                        |          | (mm)   | 21/20 | 21/25 | 27/27 | 31/32 | 41/40 | 51/50 | 66/60 | 81/75 | 101/95 | 120/120 | 140/140 |
|                                                                                                      | Travel                            |          | (mm)   | 20    |       |       |       | 30    |       |       |       | 50     |         |         |
| 2,2 kN                                                                                               | Closing pressure                  | I.       | (bar)  | 40    | 35,9  | 30,8  | 21,7  | 12,8  | 8     | 4,3   | 2,7   | 1,5    |         |         |
|                                                                                                      |                                   | II.      | (bar)  | 40    | 33,7  | 28,8  | 20,2  | 11,9  | 7,4   | 3,9   | 2,3   | 1,3    |         |         |
|                                                                                                      |                                   | III.     | (bar)  | 30,7  | 30,1  | 27,1  | 19,1  | 10,6  | 6,5   | 3,6   | 2,2   | 1,2    |         |         |
|                                                                                                      | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |        |         |         |
|                                                                                                      | Operating speed <sup>2)</sup>     |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |        |         |         |
| 5 kN                                                                                                 | Closing pressure                  | I.       | (bar)  |       | 40    | 40    | 40    | 33,2  | 21,3  | 12,3  | 8     | 4,9    | 3,4     | 2,4     |
|                                                                                                      |                                   | II.      | (bar)  |       | 40    | 40    | 40    | 32,3  | 20,7  | 11,9  | 7,6   | 4,7    | 3,2     | 2,3     |
|                                                                                                      |                                   | III.     | (bar)  | 40    | 40    | 40    | 40    | 31    | 19,8  | 11,6  | 7,5   | 4,6    | 3       | 2,1     |
|                                                                                                      | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       | 132    |         |         |
|                                                                                                      | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |        |         |         |
| 12 kN                                                                                                | Closing pressure                  | I.       | (bar)  |       |       |       |       | 40    | 40    | 32,3  | 21,2  | 13,5   | 9,5     | 6,9     |
|                                                                                                      |                                   | II.      | (bar)  |       |       |       |       | 40    | 40    | 31,8  | 20,9  | 13,3   | 9,3     | 6,8     |
|                                                                                                      |                                   | III.     | (bar)  |       |       |       |       | 40    | 40    | 31,6  | 20,7  | 13,2   | 9,1     | 6,6     |
|                                                                                                      | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       | 132    |         |         |
|                                                                                                      | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |        |         |         |
| 15 kN                                                                                                | Closing pressure                  | I.       | (bar)  |       |       |       |       |       |       | 40    | 26,9  | 17,2   | 12,1    | 8,8     |
|                                                                                                      |                                   | II.      | (bar)  |       |       |       |       |       |       | 40    | 26,6  | 17     | 11,9    | 8,7     |
|                                                                                                      |                                   | III.     | (bar)  |       |       |       |       |       |       | 40    | 26,4  | 16,9   | 11,7    | 8,5     |
|                                                                                                      | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       | 132    |         |         |
|                                                                                                      | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |        |         |         |
| 25 kN                                                                                                | Closing pressure                  | I.       | (bar)  |       |       |       |       |       |       |       |       |        | 20,8    | 15,2    |
|                                                                                                      |                                   | II.      | (bar)  |       |       |       |       |       |       |       |       |        | 20,6    | 15,1    |
|                                                                                                      |                                   | III.     | (bar)  |       |       |       |       |       |       |       |       |        | 20,4    | 14,9    |
|                                                                                                      | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       | 132    |         |         |
|                                                                                                      | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |        |         |         |

| DN                                                                                                        |                                   |          |        | 15    | 20    | 25    | 32    | 40    | 50    | 65    | 80    | 100   | 125     | 150     |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|
| <br>Diverting function | Kvs-value                         | standard | (m³/h) | 4     | 6,3   | 10    | 16    | 14    | 25    | 45    | 60    | 95    | 170     | 200     |
|                                                                                                           |                                   | reduced  | (m³/h) | 2,5   | 4     | 6,3   | 10    |       |       |       |       |       |         |         |
|                                                                                                           | max. diff. pressure <sup>1)</sup> |          | (bar)  | 40    |       |       |       | 30    |       |       |       | 25    |         | 15      |
|                                                                                                           | Seat-Ø A/B                        |          | (mm)   | 21/20 | 21/25 | 27/27 | 31/32 | 40/40 | 50/50 | 60/60 | 75/75 | 90/90 | 105/105 | 125/125 |
|                                                                                                           | Travel                            |          | (mm)   | 20    |       |       |       | 30    |       |       |       | 30    |         |         |
| 2,2 kN                                                                                                    | Closing pressure                  | I.       | (bar)  | 25,7  | 18    | 15,4  | 10,8  | 13,4  | 8,2   | 5,4   | 3,2   | 2     | 1,3     |         |
|                                                                                                           |                                   | II.      | (bar)  | 24,1  | 16,8  | 14,4  | 10,1  | 12,5  | 7,6   | 4,8   | 2,8   | 1,8   | 1,1     |         |
|                                                                                                           |                                   | III.     | (bar)  | 15,4  | 15    | 13,6  | 9,5   | 11,1  | 6,8   | 4,5   | 2,6   | 1,6   |         |         |
|                                                                                                           | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |       |         |         |
|                                                                                                           | Operating speed <sup>2)</sup>     |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |       |         |         |
| 5 kN                                                                                                      | Closing pressure                  | I.       | (bar)  | 40    | 40    | 38,5  | 27,4  | 34,6  | 21,9  | 15    | 9,4   | 6,4   | 4,5     | 3,1     |
|                                                                                                           |                                   | II.      | (bar)  | 40    | 40    | 37,5  | 26,7  | 33,7  | 21,3  | 14,4  | 9     | 6,1   | 4,3     | 2,9     |
|                                                                                                           |                                   | III.     | (bar)  | 40    | 40    | 36,6  | 26,1  | 32,3  | 20,4  | 14,1  | 8,8   | 6     | 4       | 2,7     |
|                                                                                                           | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |       |         |         |
|                                                                                                           | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |       |         |         |
| 12 kN                                                                                                     | Closing pressure                  | I.       | (bar)  |       |       | 40    | 40    | 40    | 40    | 38,9  | 24,8  | 17,1  | 12,3    | 8,6     |
|                                                                                                           |                                   | II.      | (bar)  |       |       | 40    | 40    | 40    | 40    | 38,4  | 24,4  | 16,9  | 12,1    | 8,5     |
|                                                                                                           |                                   | III.     | (bar)  |       |       | 40    | 40    | 40    | 40    | 38    | 24,2  | 16,7  | 11,9    | 8,3     |
|                                                                                                           | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |       |         |         |
|                                                                                                           | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |       |         |         |
| 15 kN                                                                                                     | Closing pressure                  | I.       | (bar)  |       |       |       |       |       |       | 40    | 31,4  | 21,7  | 15,7    | 11      |
|                                                                                                           |                                   | II.      | (bar)  |       |       |       |       |       |       | 40    | 31,1  | 21,5  | 15,5    | 10,9    |
|                                                                                                           |                                   | III.     | (bar)  |       |       |       |       |       |       | 40    | 30,8  | 21,3  | 15,3    | 10,7    |
|                                                                                                           | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |       |         |         |
|                                                                                                           | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |       |         |         |
| 25 kN                                                                                                     | Closing pressure                  | I.       | (bar)  |       |       |       |       |       |       |       |       |       | 26,9    | 19,0    |
|                                                                                                           |                                   | II.      | (bar)  |       |       |       |       |       |       |       |       |       | 26,7    | 18,8    |
|                                                                                                           |                                   | III.     | (bar)  |       |       |       |       |       |       |       |       |       | 26,5    | 18,7    |
|                                                                                                           | Operating time                    |          | (s)    | 53    |       |       |       | 79    |       |       |       |       |         |         |
|                                                                                                           | Operating speed                   |          | (mm/s) | 0,38  |       |       |       |       |       |       |       |       |         |         |

Further operating speeds: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Based on a frequency of 50Hz the control speed and power consumption of the synchronous motors PREMIO 2,2kN are 20% higher at frequency of 60 Hz.

$$\text{Operating time [s]} = \frac{\text{Travel [mm]}}{\text{Operating speed [mm/s]}}$$

Control valve in straightway form with electric actuator AUMA (3-way mixing valve / 3-way diverting valve)

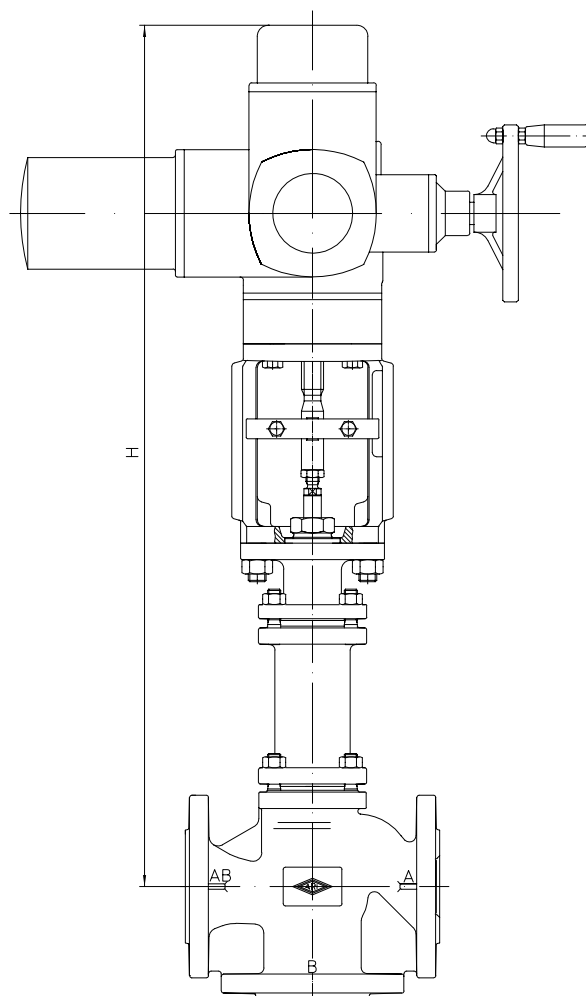
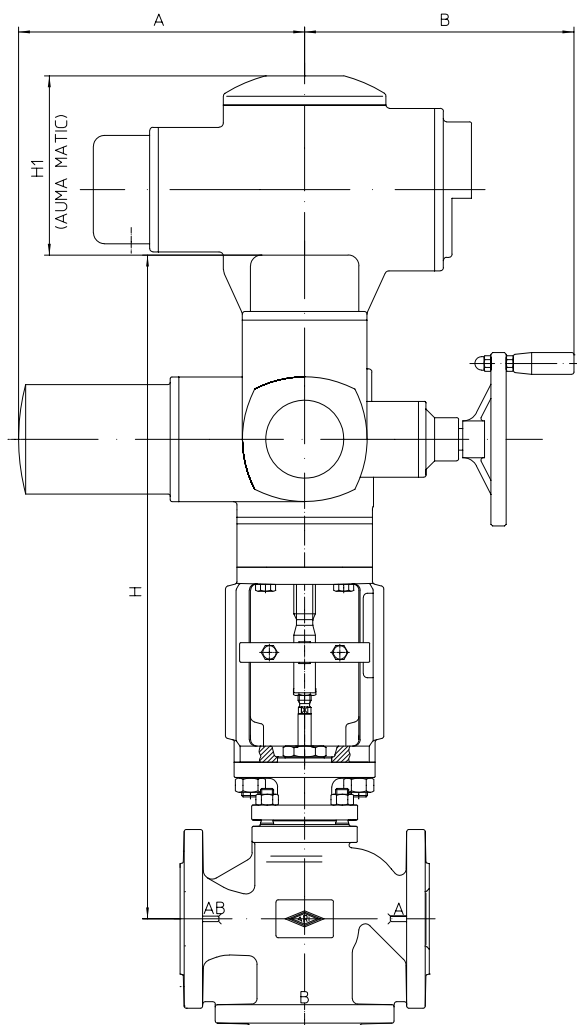


Fig. 450

Fig. 451

| Actuator data                                            |      | SAR 07.2 | SAR 07.6 | SAR 10.2 | SAR 14.2 |
|----------------------------------------------------------|------|----------|----------|----------|----------|
| A                                                        | (mm) | 265      |          | 283      | 389      |
| B                                                        | (mm) | 249      |          | 254      | 336      |
| H1 (AUMA MATIC)                                          | (mm) | 130      |          |          | 182      |
| Supply voltage: 400V 50Hz 3~ (Other voltages on request) |      |          |          |          |          |
| Technical data for actuator refer to price list.         |      |          |          |          |          |

Heights and weights

| DN       |                      |      |      | 25  | 32  | 40  | 50  | 65  | 80  | 100 | 125  | 150  |
|----------|----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|------|
| Fig. 450 | SAR 07.2<br>SAR 07.6 | H    | (mm) | 633 | 659 | 665 | 663 | 699 | 715 | 734 | 781  | 843  |
|          |                      | PN16 | (kg) | 34  | 37  | 40  | 46  | 52  | 59  | 75  | 96   | 124  |
|          |                      | PN40 | (kg) | 35  | 38  | 42  | 47  | 54  | 61  | 79  | 124  | 166  |
|          | SAR 10.2             | H    | (mm) | --  | --  | --  | --  | 701 | 717 | 736 | 783  | 845  |
|          |                      | PN16 | (kg) | --  | --  | --  | --  | 55  | 61  | 78  | 99   | 126  |
|          |                      | PN40 | (kg) | --  | --  | --  | --  | 57  | 64  | 82  | 126  | 169  |
|          | SAR 14.2             | H    | (mm) | --  | --  | --  | --  | --  | --  | --  | 880  | 913  |
|          |                      | PN16 | (kg) | --  | --  | --  | --  | --  | --  | --  | 148  | 172  |
|          |                      | PN40 | (kg) | --  | --  | --  | --  | --  | --  | --  | 157  | 189  |
| Fig. 451 | SAR 07.2<br>SAR 07.6 | H    | (mm) | 818 | 844 | 834 | 828 | 934 | 947 | 963 | 1136 | 1169 |
|          |                      | PN16 | (kg) | 38  | 40  | 45  | 50  | 59  | 69  | 86  | 106  | 134  |
|          |                      | PN40 | (kg) | 39  | 41  | 46  | 51  | 61  | 72  | 91  | 134  | 177  |
|          | SAR 10.2             | H    | (mm) | --  | --  | --  | --  | --  | --  | --  | 1138 | 1171 |
|          |                      | PN16 | (kg) | --  | --  | --  | --  | --  | --  | --  | 109  | 136  |
|          |                      | PN40 | (kg) | --  | --  | --  | --  | --  | --  | --  | 137  | 179  |
|          | SAR 14.2             | H    | (mm) | --  | --  | --  | --  | --  | --  | --  | 1439 | 1472 |
|          |                      | PN16 | (kg) | --  | --  | --  | --  | --  | --  | --  | 173  | 199  |
|          |                      | PN40 | (kg) | --  | --  | --  | --  | --  | --  | --  | 184  | 217  |

For version with AUMA SAR Ex other heights.

Further dimensions refer to pages 16 - 17.

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| Fig. 450                                                                                                                                  | DN                                |        |                           | 25     | 32    | 40    | 50    | 65    | 80    | 100   | 125    | 150     |         |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------|---------------------------|--------|-------|-------|-------|-------|-------|-------|--------|---------|---------|--|
| <div>AB  A</div> <div>B</div> <div>Mixing function</div> | Kvs-value                         |        | standard                  | (m³/h) | 10    | 16    | 25    | 40    | 63    | 100   | 160    | 250     | 320     |  |
|                                                                                                                                           |                                   |        | reduced                   | (m³/h) | 6,3   | 10    | 16    | 25    | 40    | 63    | 100    | 160     | 250     |  |
|                                                                                                                                           | max. diff. pressure <sup>1)</sup> |        |                           | (bar)  | 40    |       |       | 30    |       |       | 25     |         | 15      |  |
|                                                                                                                                           | Seat-Ø A/B                        |        |                           | (mm)   | 27/27 | 31/32 | 41/40 | 51/50 | 66/60 | 81/75 | 101/95 | 120/120 | 140/140 |  |
|                                                                                                                                           | Travel                            |        |                           | (mm)   | 20    |       |       |       | 30    |       |        |         | 50      |  |
| SAR 07.2<br>Output drive<br>Form A<br>TR 20 x 4 - LH                                                                                      | Closing pressure                  | I./II. | shut off                  | (bar)  | 40    | 40    | 40    | 40    | 40    | 29,7  | 19     | 13,4    | 9,7     |  |
|                                                                                                                                           |                                   |        | controlling <sup>2)</sup> | (bar)  | 40    | 40    | 40    | 36,5  | 21,4  | 14    | 8,8    | 6,1     | 4,4     |  |
|                                                                                                                                           | Torque                            |        |                           | (Nm)   | 15    | 15    | 15    | 20    | 30    | 30    | 30     | 30      | 30      |  |
|                                                                                                                                           | Operating time (50 Hz)            |        |                           | (s)    | 54    |       |       |       | 56    |       |        |         | 94      |  |
|                                                                                                                                           | Output drive                      |        |                           | (rpm)  | 5,6   |       |       |       | 8     |       |        |         | 8       |  |
| SAR 07.6<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                      | Closing pressure                  | I./II. | shut off                  | (bar)  |       |       |       | 40    | 40    | 40    | 26,9   | 18,9    | 13,8    |  |
|                                                                                                                                           |                                   |        | controlling <sup>2)</sup> | (bar)  |       |       |       | 40    | 30,5  | 20    | 12,8   | 8,9     | 6,5     |  |
|                                                                                                                                           | Torque                            |        |                           | (Nm)   |       |       |       | 30    | 40    | 60    | 60     | 60      | 60      |  |
|                                                                                                                                           | Operating time (50 Hz)            |        |                           | (s)    |       |       |       | 43    | 64    |       |        |         | 55      |  |
|                                                                                                                                           | Output drive                      |        |                           | (rpm)  |       |       |       | 5,6   | 5,6   |       |        |         | 11      |  |
| SAR 10.2<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                      | Closing pressure                  | I./II. | shut off                  | (bar)  |       |       |       | 40    | 40    | 31,6  | 32,3   | 23,7    |         |  |
|                                                                                                                                           |                                   |        | controlling <sup>2)</sup> | (bar)  |       |       |       | 40    | 40    | 26,9  | 18,9   | 13,8    |         |  |
|                                                                                                                                           | Torque                            |        |                           | (Nm)   |       |       |       | 60    | 60    | 70    | 100    | 100     |         |  |
|                                                                                                                                           | Operating time (50 Hz)            |        |                           | (s)    |       |       |       | 64    |       |       |        | 55      |         |  |
|                                                                                                                                           | Output drive                      |        |                           | (rpm)  |       |       |       | 5,6   |       |       |        | 11      |         |  |
| SAR 14.2<br>Output drive<br>Form A<br>TR 30 x 6 - LH                                                                                      | Closing pressure                  | II.    | shut off                  | (bar)  |       |       |       |       |       |       | 40     | 40      |         |  |
|                                                                                                                                           |                                   |        | controlling <sup>2)</sup> | (bar)  |       |       |       |       |       |       | 31,3   | 22,9    |         |  |
|                                                                                                                                           | Torque                            |        |                           | (Nm)   |       |       |       |       |       |       | 175    | 225     |         |  |
|                                                                                                                                           | Operating time (50 Hz)            |        |                           | (s)    |       |       |       |       |       |       | 63     |         |         |  |
|                                                                                                                                           | Output drive                      |        |                           | (rpm)  |       |       |       |       |       |       | 8      |         |         |  |

| Fig. 451                                                                                                                     | DN                                |          |                           | 25     | 32    | 40    | 50    | 65    | 80    | 100   | 125    | 150     |         |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|---------------------------|--------|-------|-------|-------|-------|-------|-------|--------|---------|---------|
| <div>ABA</div> <div>Mixing function</div> | Kvs-value                         | standard |                           | (m³/h) | 10    | 16    | 25    | 40    | 63    | 100   | 160    | 250     | 320     |
|                                                                                                                              |                                   | reduced  |                           | (m³/h) | 6,3   | 10    | 16    | 25    | 40    | 63    | 100    | 160     | 250     |
|                                                                                                                              | max. diff. pressure <sup>1)</sup> |          |                           | (bar)  | 40    |       | 30    |       | 25    |       | 15     |         |         |
|                                                                                                                              | Seat-Ø A/B                        |          |                           | (mm)   | 27/27 | 31/32 | 41/40 | 51/50 | 66/60 | 81/75 | 101/95 | 120/120 | 140/140 |
|                                                                                                                              | Travel                            |          |                           | (mm)   | 20    |       |       | 30    |       |       | 50     |         |         |
| <b>SAR 07.2</b><br>Output drive<br>Form A<br>TR 20 x 4 - LH                                                                  | Closing pressure                  | III.     | shut off                  | (bar)  | 40    | 40    | 40    | 40    | 40    | 29,5  | 18,9   | 13,2    | 9,6     |
|                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)  | 40    | 40    | 40    | 35,7  | 21,1  | 13,8  | 8,7    | 5,9     | 4,3     |
|                                                                                                                              | Torque                            |          |                           | (Nm)   | 15    | 15    | 15    | 20    | 30    | 30    | 30     | 30      | 30      |
|                                                                                                                              | Operating time (50 Hz)            |          |                           | (s)    | 54    |       |       | 56    |       |       | 94     |         |         |
|                                                                                                                              | Output drive                      |          |                           | (rpm)  | 5,6   |       |       | 8     |       |       | 8      |         |         |
| <b>SAR 07.6</b><br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                  | Closing pressure                  | III.     | shut off                  | (bar)  |       |       | 40    | 40    | 30,8  | 19,7  | 18,8   | 13,7    |         |
|                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)  |       |       | 40    | 30,2  | 19,8  | 12,6  | 8,7    | 6,3     |         |
|                                                                                                                              | Torque                            |          |                           | (Nm)   |       |       | 30    | 40    | 45    | 45    | 60     | 60      |         |
|                                                                                                                              | Operating time (50 Hz)            |          |                           | (s)    |       |       | 43    | 64    |       |       | 55     |         |         |
|                                                                                                                              | Output drive                      |          |                           | (rpm)  |       |       | 5,6   | 5,6   |       |       | 11     |         |         |
| <b>SAR 10.2</b><br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                  | Closing pressure                  | III.     | shut off                  | (bar)  |       |       |       |       |       |       | 28,8   | 21,1    |         |
|                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)  |       |       |       |       |       |       | 18,8   | 13,7    |         |
|                                                                                                                              | Torque                            |          |                           | (Nm)   |       |       |       |       |       |       | 90     | 90      |         |
|                                                                                                                              | Operating time (50 Hz)            |          |                           | (s)    |       |       |       |       |       |       | 55     |         |         |
|                                                                                                                              | Output drive                      |          |                           | (rpm)  |       |       |       |       |       |       | 11     |         |         |
| <b>SAR 14.2</b><br>Output drive<br>Form A<br>TR 30 x 6 - LH                                                                  | Closing pressure                  | III.     | shut off                  | (bar)  |       |       |       |       |       |       | 40     | 38,9    |         |
|                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)  |       |       |       |       |       |       | 31,2   | 22,9    |         |
|                                                                                                                              | Torque                            |          |                           | (Nm)   |       |       |       |       |       |       | 175    | 200     |         |
|                                                                                                                              | Operating time (50 Hz)            |          |                           | (s)    |       |       |       |       |       |       | 63     |         |         |
|                                                                                                                              | Output drive                      |          |                           | (rpm)  |       |       |       |       |       |       | 8      |         |         |

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing;

II. Fig. 450: PTFE- / pure graphite-packing;

III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Restrictions through max. permissible torque of the actuator at controlling operation.

max. permissible closing pressures on flow-to-open P2 = 0.  
Observe pressure-temperature-limits, refer to page 2.

| Fig. 450                                                                                                                                     | DN                                |          |                           | 25                        | 32    | 40    | 50    | 65    | 80    | 100   | 125   | 150     |         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|---------------------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|
|                                                                                                                                              |                                   |          |                           | mixing plug for diverting |       |       |       |       |       |       |       |         |         |
| <div>AB  A</div> <div>B</div> <div>Diverting function</div> | Kvs-value                         | standard | (m³/h)                    | 10                        | 16    | 14    | 25    | 45    | 60    | 95    | 170   | 200     |         |
|                                                                                                                                              |                                   | reduced  | (m³/h)                    | 6,3                       | 10    |       |       |       |       |       |       |         |         |
|                                                                                                                                              | max. diff. pressure <sup>1)</sup> |          |                           | (bar)                     | 40    |       | 30    |       |       | 25    |       | 15      |         |
|                                                                                                                                              | Seat-Ø A/B                        |          |                           | (mm)                      | 27/27 | 31/32 | 40/40 | 50/50 | 60/60 | 75/75 | 90/90 | 105/105 | 125/125 |
|                                                                                                                                              | Travel                            |          |                           | (mm)                      | 20    |       |       |       | 30    |       |       |         |         |
| SAR 07.2<br>Output drive<br>Form A<br>TR 20 x 4 - LH                                                                                         | Closing pressure                  | I./II.   | shut off                  | (bar)                     | 40    | 40    | 40    | 40    | 40    | 34,7  | 24    | 17,4    | 12,2    |
|                                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)                     | 40    | 40    | 40    | 37,6  | 25,8  | 16,4  | 11,2  | 8       | 5,6     |
|                                                                                                                                              | Torque                            |          |                           | (Nm)                      | 15    | 15    | 15    | 20    | 25    | 30    | 30    | 30      | 30      |
|                                                                                                                                              | Operating time                    |          |                           | (s)                       | 54    |       |       |       | 56    |       |       |         |         |
|                                                                                                                                              | Output drive                      |          |                           | (rpm)                     | 5,6   |       |       |       | 8     |       |       |         |         |
| SAR 07.6<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                         | Closing pressure                  | I./II.   | shut off                  | (bar)                     |       |       | 40    | 40    | 40    | 33,9  | 24,6  | 17,3    |         |
|                                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)                     |       |       | 40    | 36,8  | 23,4  | 16,2  | 11,6  | 8,1     |         |
|                                                                                                                                              | Torque                            |          |                           | (Nm)                      |       |       | 30    | 35    | 50    | 60    | 60    | 60      |         |
|                                                                                                                                              | Operating time                    |          |                           | (s)                       |       |       | 43    | 64    |       |       |       |         |         |
|                                                                                                                                              | Output drive                      |          |                           | (rpm)                     |       |       | 5,6   | 5,6   |       |       |       |         |         |
| SAR 10.2<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                         | Closing pressure                  | I./II.   | shut off                  | (bar)                     |       |       |       | 40    | 40    | 39,8  | 40    | 29,5    |         |
|                                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)                     |       |       |       | 40    | 40    | 33,9  | 24,6  | 17,3    |         |
|                                                                                                                                              | Torque                            |          |                           | (Nm)                      |       |       |       | 60    | 60    | 70    | 100   | 100     |         |
|                                                                                                                                              | Operating time                    |          |                           | (s)                       |       |       |       | 64    |       |       |       |         |         |
|                                                                                                                                              | Output drive                      |          |                           | (min <sup>-2)</sup>       |       |       |       | 5,6   |       |       |       |         |         |
| SAR 14.2<br>Output drive<br>Form A<br>TR 30 x 6 - LH                                                                                         | Closing pressure                  | II.      | shut off                  | (bar)                     |       |       |       |       |       |       | 40    | 40      |         |
|                                                                                                                                              |                                   |          | controlling <sup>2)</sup> | (bar)                     |       |       |       |       |       |       | 40    | 28,6    |         |
|                                                                                                                                              | Torque                            |          |                           | (Nm)                      |       |       |       |       |       |       | 120   | 175     |         |
|                                                                                                                                              | Operating time                    |          |                           | (s)                       |       |       |       |       |       |       | 38    |         |         |
|                                                                                                                                              | Output drive                      |          |                           | (rpm)                     |       |       |       |       |       |       | 8     |         |         |

| Fig. 451                                                                                                                                       | DN                                |      |                           | 25                        | 32    | 40    | 50    | 65    | 80    | 100   | 125     | 150     |     |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------|---------------------------|---------------------------|-------|-------|-------|-------|-------|-------|---------|---------|-----|
|                                                                                                                                                |                                   |      |                           | mixing plug for diverting |       |       |       |       |       |       |         |         |     |
| <div>AB  A</div> <div>B</div> <div>Diverting function</div> | Kvs-value                         |      | (m³/h)                    | 10                        | 16    | 14    | 25    | 45    | 60    | 95    | 170     | 200     |     |
|                                                                                                                                                |                                   |      |                           | 6,3                       | 10    |       |       |       |       |       |         |         |     |
|                                                                                                                                                | max. diff. pressure <sup>1)</sup> |      | (bar)                     | 40                        |       | 30    |       |       | 25    |       | 15      |         |     |
|                                                                                                                                                | Seat-Ø A/B                        |      | (mm)                      | 27/27                     | 31/32 | 40/40 | 50/50 | 60/60 | 75/75 | 90/90 | 105/105 | 125/125 |     |
|                                                                                                                                                | Travel                            |      | (mm)                      | 20                        |       |       |       | 30    |       |       |         |         |     |
| SAR 07.2<br>Output drive<br>Form A<br>TR 20 x 4 - LH                                                                                           | Closing pressure                  | III. | shut off                  | (bar)                     | 40    | 40    | 40    | 40    | 40    | 34,5  | 23,9    | 17,1    | 12  |
|                                                                                                                                                |                                   |      | controlling <sup>2)</sup> | (bar)                     | 40    | 40    | 40    | 36,7  | 25,5  | 16,1  | 11,1    | 7,8     | 5,4 |
|                                                                                                                                                | Torque                            |      | (Nm)                      | 15                        | 15    | 15    | 20    | 25    | 30    | 30    | 30      | 30      |     |
|                                                                                                                                                | Operating time                    |      | (s)                       | 54                        |       |       |       | 56    |       |       |         |         |     |
|                                                                                                                                                | Output drive                      |      | (min <sup>-2</sup> )      | 5,6                       |       |       |       | 8     |       |       |         |         |     |
| SAR 07.6<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                           | Closing pressure                  | III. | shut off                  | (bar)                     |       |       | 40    | 40    | 35,9  | 24,9  | 24,3    | 17,1    |     |
|                                                                                                                                                |                                   |      | controlling <sup>2)</sup> | (bar)                     |       |       | 40    | 36,4  | 23,2  | 16    | 11,4    | 7,9     |     |
|                                                                                                                                                | Torque                            |      | (Nm)                      |                           |       | 30    | 35    | 45    | 45    | 60    | 60      |         |     |
|                                                                                                                                                | Operating time                    |      | (s)                       |                           |       | 43    | 64    |       |       |       |         |         |     |
|                                                                                                                                                | Output drive                      |      | (min <sup>-2</sup> )      |                           |       | 5,6   | 5,6   |       |       |       |         |         |     |
| SAR 10.2<br>Output drive<br>Form A<br>TR 26 x 5 - LH                                                                                           | Closing pressure                  | III. | shut off                  | (bar)                     |       |       |       |       |       |       | 37,3    | 26,3    |     |
|                                                                                                                                                |                                   |      | controlling <sup>2)</sup> | (bar)                     |       |       |       |       |       |       | 24,3    | 17,1    |     |
|                                                                                                                                                | Torque                            |      | (Nm)                      |                           |       |       |       |       |       | 90    | 90      |         |     |
|                                                                                                                                                | Operating time                    |      | (s)                       |                           |       |       |       |       |       | 64    |         |         |     |
|                                                                                                                                                | Output drive                      |      | (min <sup>-2</sup> )      |                           |       |       |       |       |       | 5,6   |         |         |     |
| SAR 14.2<br>Output drive<br>Form A<br>TR 30 x 6 - LH                                                                                           | Closing pressure                  | III. | shut off                  | (bar)                     |       |       |       |       |       |       | 40      | 35,9    |     |
|                                                                                                                                                |                                   |      | controlling <sup>2)</sup> | (bar)                     |       |       |       |       |       |       | 40      | 28,5    |     |
|                                                                                                                                                | Torque                            |      | (Nm)                      |                           |       |       |       |       |       | 120   | 150     |         |     |
|                                                                                                                                                | Operating time                    |      | (s)                       |                           |       |       |       |       |       | 38    |         |         |     |
|                                                                                                                                                | Output drive                      |      | (min <sup>-2</sup> )      |                           |       |       |       |       |       | 8     |         |         |     |

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing;

II. Fig. 450: PTFE- / pure graphite-packing;

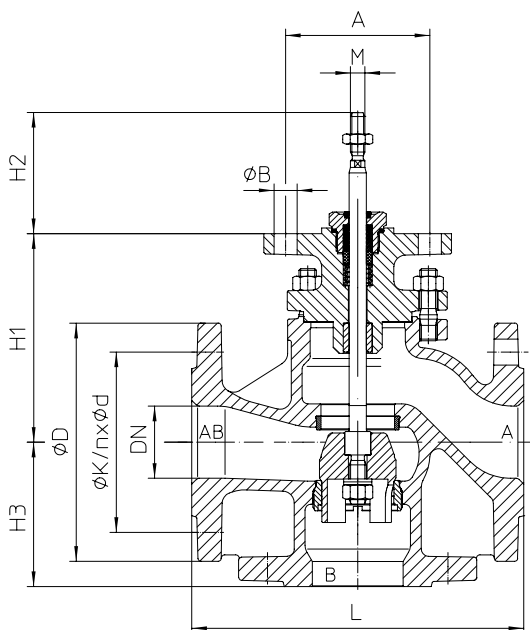
III. Fig. 451: Bellows seal

<sup>1)</sup> max. differential pressure drop

<sup>2)</sup> Restrictions through max. permissible torque of the actuator at controlling operation.



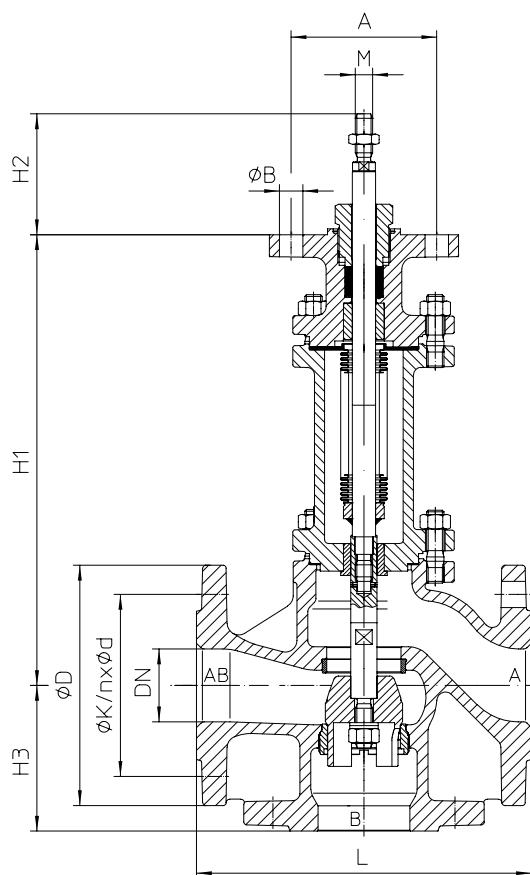
Control valve in 3-way-form



**Fig. 450**

**DN15-150**

(e.g.: DP32-34; PREMIO 2,2-25kN; AUMA 07.2-10.2)



**Fig. 451**

**DN15-150**

(e.g.: DP32-34; PREMIO 2,2-25kN; AUMA 07.2-10.2)

| DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|
|----|----|----|----|----|----|----|----|----|-----|-----|-----|

| Dimensions |                     |      |        |     |     |     |     |     |         |     |     |         |     |
|------------|---------------------|------|--------|-----|-----|-----|-----|-----|---------|-----|-----|---------|-----|
| M          | Fig. 450            | (mm) | M10    |     |     |     |     |     | M14x1,5 |     |     | M16x1,5 |     |
|            | Fig. 451            | (mm) | M12    |     |     |     |     |     |         |     |     | M16     |     |
| H1         | Fig. 450            | (mm) | 111    | 111 | 115 | 141 | 147 | 145 | 181     | 197 | 216 | 263     | 325 |
|            | Fig. 451            | (mm) | 296    | 296 | 300 | 326 | 316 | 310 | 416     | 429 | 445 | 618     | 651 |
| H2         | Fig. 450 / Fig. 451 | (mm) | 83     |     |     |     |     |     |         |     |     |         |     |
| H3         | Fig. 450 / Fig. 451 | (mm) | 65     | 70  | 75  | 80  | 90  | 100 | 120     | 130 | 150 | 200     | 210 |
| A          | Fig. 450 / Fig. 451 | (mm) | 100    |     |     |     |     |     |         |     |     |         |     |
| n x ØB     | Fig. 450 / Fig. 451 | (mm) | 2 x 16 |     |     |     |     |     |         |     |     |         |     |

Face-to-face dimension FTF series 1 according to DIN EN 558

| L | (mm) | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 | 400 | 480 |
|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|---|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

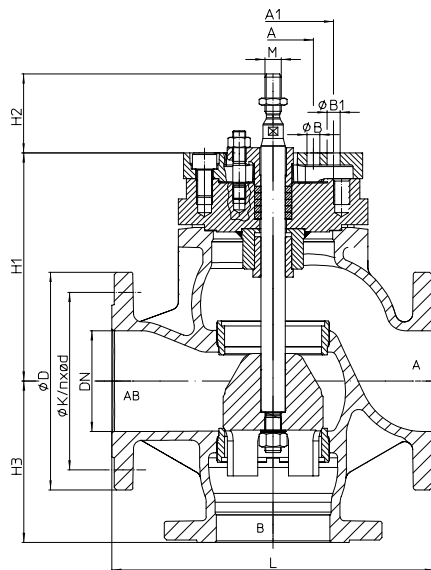
| Flanges acc. to DIN EN 1092-1/-2 |           |      | Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545 |     |     |     |        |     |     |        |        |        |        |
|----------------------------------|-----------|------|-----------------------------------------------------------------|-----|-----|-----|--------|-----|-----|--------|--------|--------|--------|
| ØD                               | PN16      | (mm) | 95                                                              | 105 | 115 | 140 | 150    | 165 | 185 | 200    | 220    | 250    | 285    |
|                                  | PN25 / 40 | (mm) |                                                                 |     |     |     |        |     |     |        | 235    | 270    | 300    |
| ØK                               | PN16      | (mm) | 65                                                              | 75  | 85  | 100 | 110    | 125 | 145 | 160    | 180    | 210    | 240    |
|                                  | PN25 / 40 | (mm) |                                                                 |     |     |     |        |     |     |        | 190    | 220    | 250    |
| n x Ød                           | PN16      | (mm) | 4 x 14                                                          |     |     |     | 4 x 18 |     |     | 8 x 18 |        |        | 8 x 22 |
|                                  | PN25 / 40 | (mm) | 4 x 14                                                          |     |     |     | 4 x 18 |     |     | 8 x 18 | 8 x 22 | 8 x 26 |        |

| Weights  |                 |      |     |     |      |      |      |      |      |      |      |       |       |
|----------|-----------------|------|-----|-----|------|------|------|------|------|------|------|-------|-------|
| Fig. 450 | PN16 (JL 1040)  | (kg) | 5,1 | 6,1 | 7,1  | 9,7  | 13   | 16,8 | 23,5 | 30   | 46,5 | 67,4  | 94,8  |
|          | PN40 (1.0619+N) | (kg) | 5,6 | 6,7 | 7,7  | 10,6 | 14,2 | 18,3 | 25,6 | 32,6 | 50,6 | 94,9  | 137,6 |
| Fig. 451 | PN16 (JL 1040)  | (kg) | 8,1 | 9,1 | 10,3 | 12,7 | 17,5 | 20,7 | 29,8 | 39,7 | 57,4 | 77,4  | 104,8 |
|          | PN40 (1.0619+N) | (kg) | 8,8 | 9,9 | 11,2 | 13,8 | 19,1 | 22,6 | 32,5 | 43,3 | 62,6 | 105,4 | 148,1 |

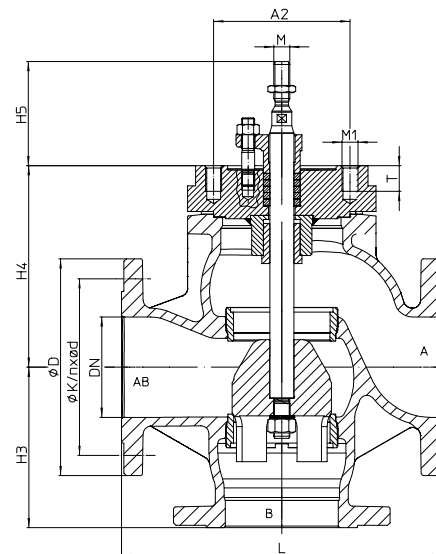
max. permissible thrust

| Fig. 450 | (kN) | 12,7 |  |  |  |  |  | 29,5 |  |  | 40,6 |  |  |
|----------|------|------|--|--|--|--|--|------|--|--|------|--|--|
| Fig. 451 | (kN) | 18,2 |  |  |  |  |  |      |  |  | 37   |  |  |

Control valve in 3-way-form

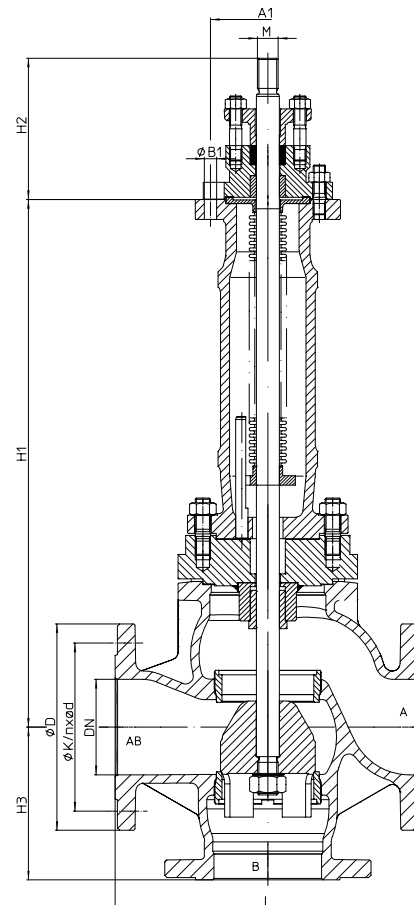


**Fig. 450**  
**DN125-150**  
(e.g.: DP34T-34Tri)

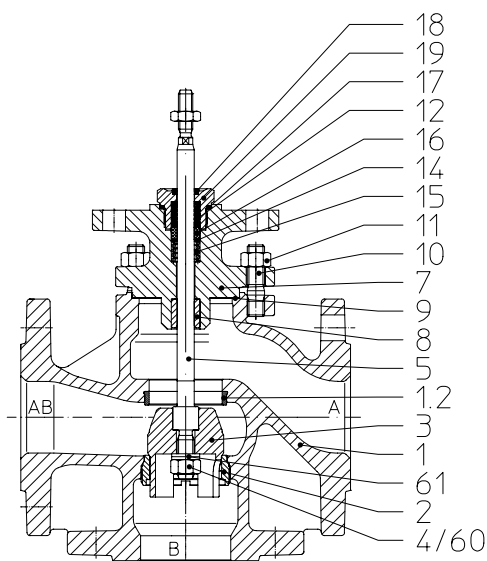


**Fig. 450**  
**DN125-150**  
(e.g.: DP35; AUMA 14.2-14.6)

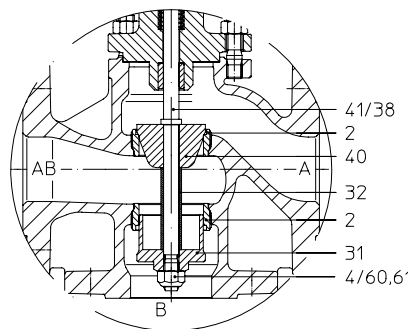
| DN                                                          |                 |      | 125    | 150    |
|-------------------------------------------------------------|-----------------|------|--------|--------|
| Dimensions                                                  |                 |      |        |        |
| M                                                           | Fig. 450 / 451  | (mm) | M27    |        |
| H1                                                          | Fig. 450        | (mm) | 283    | 316    |
|                                                             | Fig. 451        | (mm) | 690    | 723    |
| H2                                                          | Fig. 450        | (mm) | 98     |        |
|                                                             | Fig. 451        | (mm) | 185    |        |
| H3                                                          | Fig. 450/451    | (mm) | 200    | 210    |
| H4                                                          | Fig. 450        | (mm) | 658    | 961    |
| H5                                                          | Fig. 450        | (mm) | 130    |        |
| A                                                           | Fig. 450        | (mm) | 100    |        |
| n x ØB                                                      | Fig. 450        | (mm) | 2 x 16 |        |
| A1                                                          | Fig. 450 / 451  | (mm) | 150    |        |
| n x ØB1                                                     | Fig. 450 / 451  | (mm) | 4 x 16 |        |
| A2                                                          | Fig. 450        | (mm) | 170    |        |
| M1                                                          | Fig. 450        | (mm) | M20    |        |
| T                                                           | Fig. 450        | (mm) | 32     |        |
| Face-to-face dimension FTF series 1 according to DIN EN 558 |                 |      |        |        |
| L                                                           |                 | (mm) | 400    | 480    |
| Flanges acc. to DIN EN 1092-1/-2                            |                 |      |        |        |
| ØD                                                          | PN16            | (mm) | 250    | 285    |
|                                                             | PN25 / 40       | (mm) | 270    | 300    |
| ØK                                                          | PN16            | (mm) | 210    | 240    |
|                                                             | PN25 / 40       | (mm) | 220    | 250    |
| n x Ød                                                      | PN16            | (mm) | 8 x 18 | 8 x 22 |
|                                                             | PN25 / 40       | (mm) | 8 x 26 | 8 x 26 |
| Weights                                                     |                 |      |        |        |
| Fig. 450                                                    | PN16 (JL 1040)  | (kg) | 82     | 106    |
|                                                             | PN40 (1.0619+N) | (kg) | 91     | 123    |
| Fig. 451                                                    | PN16 (JL 1040)  | (kg) | 107    | 133    |
|                                                             | PN40 (1.0619+N) | (kg) | 118    | 151    |
| max. permissible thrust                                     |                 |      |        |        |
| Fig. 450                                                    |                 | (kN) | 112    |        |
| Fig. 451                                                    |                 | (kN) | 70     |        |



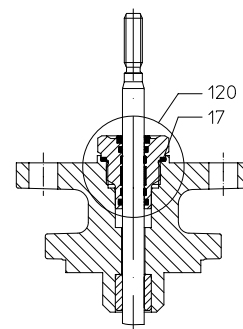
**Fig. 451**  
**DN125-150**  
(e.g.: DP34T-35; AUMA 14.2)



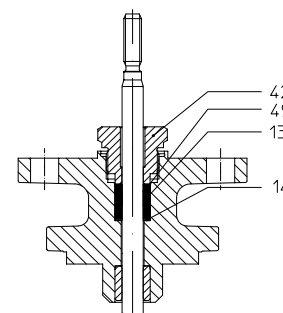
I. PTFE-V-ring unit



Diverting plug DN40 upwards



I. EPDM-sealing

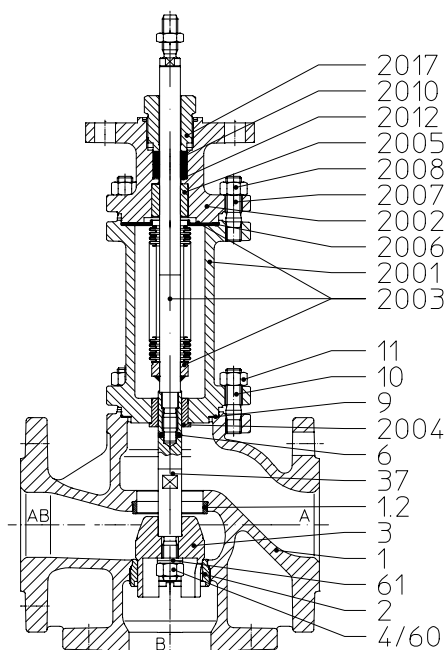
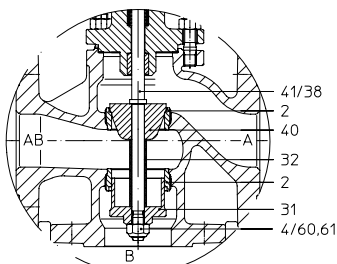
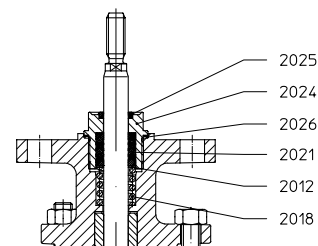
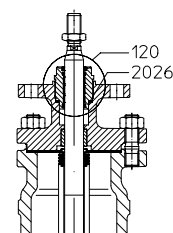


II. PTFE- / pure graphite-packing

| Pos.  | Sp.p.                     | Description        | Fig. 12.450                                  | Fig. 22.450 / Fig. 23.450 | Fig. 34.450 / Fig. 35.450 | Fig. 55.450 |
|-------|---------------------------|--------------------|----------------------------------------------|---------------------------|---------------------------|-------------|
| 1     |                           | Body               | 5.1301                                       | 5.3103                    | 1.0619+N                  | 1.4408      |
| 1.2   |                           | Seat ring          | 1.4021+QT                                    |                           |                           | --          |
| 2     | x                         | Seat ring          | 1.4021+QT                                    |                           |                           | 1.4571      |
| 3     | x                         | Plug               | 1.4021+QT                                    |                           |                           | 1.4571      |
| 4     | x                         | Hexagon nut        | 8-A2B                                        |                           | --                        |             |
| 5     | x                         | Spindle            | 1.4021+QT                                    |                           |                           | 1.4571      |
| 7     |                           | Mounting bonnet    | 5.3103                                       |                           | 1.0619+N                  | 1.4408      |
| 8     |                           | Guide bushing      | 1.4021+QT (hardened)                         |                           |                           | 1.4571      |
| 9     | x                         | Gasket             | Pure graphite (CrNi laminated with graphite) |                           |                           |             |
| 10    |                           | Stud               | 1.7218                                       |                           |                           | A4 - 70     |
| 11    |                           | Hexagon nuts       | 1.1181                                       |                           |                           | A4          |
| 12    | Set:<br>refer to Pos. 100 | V-ring unit        | PTFE                                         |                           |                           |             |
| 14    |                           | Washer             | 1.4301                                       |                           |                           |             |
| 15    |                           | Compression spring | 1.4310                                       |                           |                           |             |
| 16    |                           | Bush               | PTFE (strengthened)                          |                           |                           |             |
| 17    |                           | Gasket             | Cu / Soft iron                               |                           |                           | 1.4571      |
| 18    |                           | Scraper            | PTFE (strengthened)                          |                           |                           |             |
| 13/49 | x                         | Packing ring       | PTFE or Pure graphite                        |                           |                           |             |
| 19    | x                         | Screw joint        | 1.4305                                       |                           |                           |             |
| 31    | x                         | Plug               | 1.4021+QT                                    |                           |                           | 1.4571      |
| 32    | x                         | Distance bush      | 1.4301                                       |                           |                           |             |
| 38    | x                         | Stem adapter       | 1.4021+QT                                    |                           |                           | 1.4571      |
| 40    | x                         | Plug               | 1.4021+QT                                    |                           |                           | 1.4571      |
| 41    | x                         | Spindle            | 1.4021+QT                                    |                           |                           | 1.4571      |
| 42    | x                         | Screw joint        | 1.4305                                       |                           |                           |             |
| 60    | x                         | Hexagon nut        | --                                           |                           | A4                        |             |
| 61    |                           | Lock washer pair   | --                                           |                           | A4                        |             |

**Stem sealings Fig. 450**

|               |   |                    |                                     |
|---------------|---|--------------------|-------------------------------------|
| 100           | x | V-ring unit (set)  | Set of: Pos. 12, 14, 15, 16, 17, 18 |
| 120           | x | EPDM-sealing, cpl. | EPDM / 1.4021+QT / 1.4305           |
| 13/49         | x | Packing ring       | PTFE                                |
| 13/49         | x | Packing ring       | Pure graphite                       |
| L Spare parts |   |                    |                                     |


**III. PTFE-packing / Pure graphite-packing**

**Diverting plug DN40 upwards**

**III. Stainless steel-bellow with V-ring unit**

**III. Stainless steel bellows seal with EPDM-sealing**

| Pos. | Sp.p.                     | Description          | Fig. 12.451                                  | Fig. 22.451 / Fig. 23.451 | Fig. 34.451 / Fig. 35.451 | Fig. 55.451 |
|------|---------------------------|----------------------|----------------------------------------------|---------------------------|---------------------------|-------------|
| 1    |                           | Body                 | 5.1301                                       | 5.3103                    | 1.0619+N                  | 1.4408      |
| 1.2  |                           | Seat ring            | 1.4021+QT                                    |                           |                           | --          |
| 2    | x                         | Seat ring            | 1.4021+QT                                    |                           |                           | 1.4571      |
| 3    | x                         | Plug                 | 1.4021+QT                                    |                           |                           | 1.4571      |
| 4    | x                         | Hexagon nut          | 8-A2B                                        |                           | --                        |             |
| 6    | x                         | Clamping sleeve      | 1.4310                                       |                           |                           | A2          |
| 9    | x                         | Gasket               | Pure graphite (CrNi laminated with graphite) |                           |                           |             |
| 10   |                           | Stud                 | 1.7218                                       |                           |                           | A4 - 70     |
| 11   |                           | Hexagon nuts         | 1.1181                                       |                           |                           | A4          |
| 2001 |                           | Bellows housing      | 5.3103                                       |                           | 1.0619+N                  | 1.4408      |
| 2002 |                           | Mounting bonnet      | 5.3103                                       |                           | 1.0619+N                  | 1.4408      |
| 2003 | x                         | Stem- / Bellows unit | 1.4021+QT / 1.4541                           |                           |                           | 1.4571      |
| 2004 |                           | Guide bushing        | 1.4021+QT (hardened)                         |                           |                           | 1.4571      |
| 2005 |                           | Guide bushing        | 1.4021+QT (hardened)                         |                           |                           | 1.4571      |
| 2006 | x                         | Gasket               | Pure graphite (CrNi laminated with graphite) |                           |                           |             |
| 2007 |                           | Stud                 | 1.7218                                       |                           |                           | A4 - 70     |
| 2008 |                           | Hexagon nuts         | 1.1181                                       |                           |                           | A4          |
| 2010 | x                         | Packing ring         | Pure graphite                                |                           |                           |             |
| 2012 | x                         | Washer               | 1.4301                                       |                           |                           |             |
| 2017 | x                         | Screw joint          | 1.4305                                       |                           |                           |             |
| 2012 | Set:<br>refer to Pos. 100 | Washer               | 1.4301                                       |                           |                           |             |
| 2018 |                           | Compression spring   | 1.4310                                       |                           |                           |             |
| 2021 |                           | V-ring unit          | PTFE                                         |                           |                           |             |
| 2024 |                           | Screw joint          | 1.4305                                       |                           |                           |             |
| 2025 |                           | Scraper              | PTFE                                         |                           |                           |             |
| 2026 |                           | Gasket               | 1.4571                                       |                           |                           |             |
| 31   | x                         | Plug                 | 1.4021+QT                                    |                           |                           | 1.4571      |
| 32   | x                         | Distance bush        | 1.4301                                       |                           |                           |             |
| 37   | x                         | Stem adapter         | 1.4021+QT                                    |                           |                           | 1.4571      |
| 38   | x                         | Stem adapter         | 1.4021+QT                                    |                           |                           | 1.4571      |
| 40   | x                         | Plug                 | 1.4021+QT                                    |                           |                           | 1.4571      |
| 41   | x                         | Spindle              | 1.4021+QT                                    |                           |                           | 1.4571      |
| 60   | x                         | Hexagon nut          | --                                           |                           | A4                        |             |
| 61   |                           | Lock washer pair     | --                                           |                           | A4                        |             |

**Stem sealings Fig. 451**

|               |   |                    |                           |
|---------------|---|--------------------|---------------------------|
| 2010          | x | Packing ring       | Pure graphite             |
| 100           | x | V-ring unit (set)  | Set of: Pos. 2012 - 2026  |
| 120           | x | EPDM-sealing, cpl. | EPDM / 1.4021+QT / 1.4305 |
| L Spare parts |   |                    |                           |



## myValve® - Your Valve Sizing-Program.

myValve® is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.



### Contents:

#### Module ARI-control valves STEVI-calculation

- Sizing (calculation of flow quantity Kv, volume flow Q, pressure drop  $\Delta p$ , sound level and selecting the valve.)

### Media:

#### Integrated media-databank (more than 160 media) with conditions:

- Vapours / gases
- Steam (saturated and superheated)
- Liquids

### Special features:

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number.
- Direct output of calculation and product data in PDF format.
- Product data could be taken for a direct order.
- SI- and ANSI-units with direct conversion to another databank.
- Settings with over pressure or absolute pressure.
- All ARI valves are integrated in a databank.
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PCs necessary).
- Extensive catalogue extending over several product groups.

### System Requirements:

Windows operating systems, Linux, etc.

