



## AVK NEEDLE VALVE, PN40

872/00-003

DI/SS body, SS internals, A2 bolts, gearbox for ON/OFF

AVK series 872 needle valves are designed for throttling and control of pressure and flow at high flow rates and high differential pressures. The focus is on durability and reliability with the sturdy valve housing made of either stainless steel or ductile iron coated with fusion bonded epoxy. It controls with high precision and the high quality materials guarantee long service life with easy maintenance access.

### Product description:

Needle valve for manual or intermittent pressure or flow control of water to max. 70°C

### Design standards:

- EN 1074-5
- Face-to-face dimension according to EN 558 Table 2 Basic Series 15
- Flange drilling EN1092, PN40

### Test/Approvals:

- Hydraulic test according to EN 1074-1 and 5/ EN12266
- ISO 9001 certified - SAI Global Quality
- ISO 14001 certified - SAI Global Environment

### Features:

- One-piece body construction
- Symmetrical flow path ensures evenly distributed flow around the entire seat in any open position
- Pressure balance in chamber inside for low operating torque
- Internal body shape is optimized to give low head loss coefficient
- 4 - 6 guide rails ensure very low vibration
- Main seal mounted on the piston as opposed to on the seat preventing abrasion when fitted with anti-cavitation trim
- Bushings in high strength alu-bronze
- Gaskets in polyurethane for high resistance to abrasion
- Gearbox for manual or intermittent operation
- Internal parts and fasteners in stainless steel
- All iron parts coated with min. 250µm, blue RAL5005 epoxy - fusion bonded (FBE)
- DN80-150 bodies in uncoated stainless steel
- Double O-rings sealed drive shaft
- Easy access for maintenance
- Functions: Flow control, Pressure regulation, Pump start, Reservoir inlets, Discharge, Turbine by-pass, Air regulation

### Accessories:

Handwheel for gearbox, actuator, anti-cavitation trim options



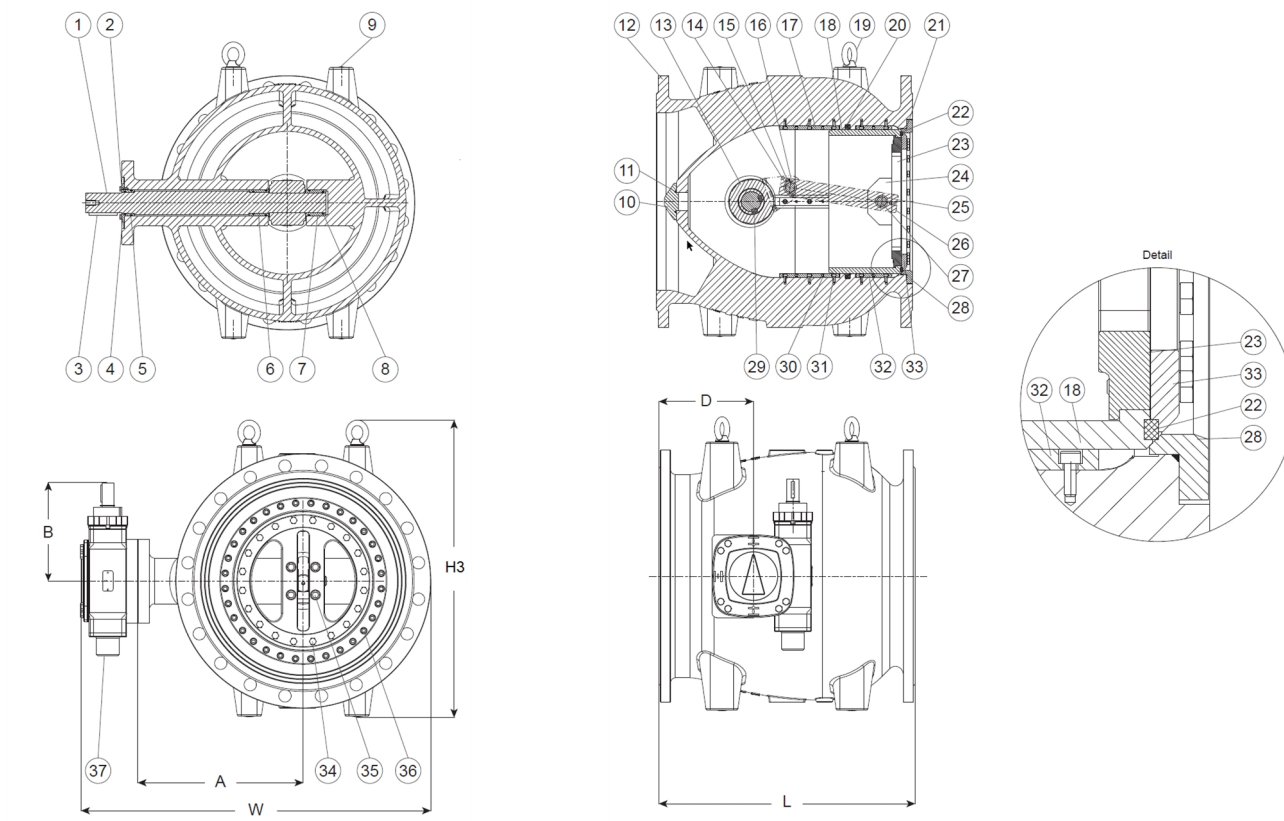
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The designs, materials and specifications shown are subject to change without notice due to the continuous development of our product range.

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## Component list:

|                          |                                 |                          |                        |
|--------------------------|---------------------------------|--------------------------|------------------------|
| 1. Shaft                 | Stainless steel 1.4028          | 20. Gasket               | Polyurethane           |
| 2. Screw                 | Stainless steel A2-70           | 21. O-ring               | EPDM rubber            |
| 3. Key                   | Stainless steel                 | 22. Gasket               | Polyurethane           |
| 4. Ring cap              | Alu-bronze CC333G               | 23. Piston flange        | Stainless steel 1.4301 |
| 5. O-ring                | EPDM rubber                     | 24. Fixing plate         | Stainless steel 1.4301 |
| 6. Bush                  | Alu-bronze CC333G               | 25. Bush                 | Alu-bronze CC333G      |
| 7. Bush                  | Alu-bronze CC333G               | 26. Connection rod       | Stainless steel 1.4028 |
| 8. O-ring                | EPDM rubber                     | 27. Pin                  | Stainless steel 1.4028 |
| 9. Plug                  | Plastic                         | 28. Body seal ring       | Stainless steel 1.4301 |
| 10. Ogive                | Stainless steel 1.4028          | 29. Key                  | Stainless steel        |
| 11. O-ring               | EPDM rubber                     | 30. Socket screw         | Stainless steel A2-70  |
| 12. Body <sup>(1)</sup>  | Ductile iron GJS-500-7 (GGG-50) | 31. Bolt, socket head    | Stainless steel A2-70  |
| 13. Crank <sup>(2)</sup> | Ductile iron GJS-500-7 (GGG-50) | 32. Guide <sup>(3)</sup> | Brass CW617N           |
| 14. Pin                  | Stainless steel 1.4028          | 33. Fixing gasket ring   | Stainless steel 1.4301 |
| 15. Split pin            | Stainless steel 1.4301          | 34. Bolt, hexagon head   | Stainless steel A2-70  |
| 16. Bush                 | Alu-bronze CC333G               | 35. Bolt, socket head    | Stainless steel A2-70  |
| 17. Guide <sup>(3)</sup> | Brass CW617N                    | 36. Bolt, socket head    | Stainless steel A2-70  |
| 18. Piston tube          | Stainless steel 1.4301          | 37. Gearbox              |                        |
| 19. Eye bolt             | Steel, zinc coated              |                          |                        |

Components may be substituted with equivalent or higher class materials without prior notification.

(1) DN 80, 100 and 150: cast stainless steel 1.4308 / CF8

(2) DN 80, 100 and 150: stainless steel 1.4401 / 316

(3) DN 80, 100 and 150: cast stainless steel 1.4308 / CF8 as part of the body

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### Reference nos. and dimensions:

| AVK ref. no.                           | DN<br>mm | Flange<br>drilling | A<br>mm | B<br>mm | D<br>mm | H3<br>mm | L<br>mm | W<br>mm | Theoretical<br>weight/kg |
|--|----------|--------------------|---------|---------|---------|----------|---------|---------|--------------------------|
| 872-0080-00-60900100100 <sup>(1)</sup> | 80       | PN40               | 125     | 117     | 100     | 230      | 260     | 330     | 31                       |
| 872-0100-00-60900100100                | 100      | PN40               | 145     | 117     | 120     | 235      | 300     | 370     | 42                       |
| 872-0150-00-60900100100                | 150      | PN40               | 175     | 150     | 135     | 300      | 350     | 435     | 75                       |
| 872-0200-00-60100100000                | 200      | PN40               | 220     | 150     | 150     | 425      | 400     | 510     | 122                      |
| 872-0250-00-60100100000                | 250      | PN40               | 260     | 150     | 165     | 505      | 450     | 580     | 165                      |
| 872-0300-00-60100100000                | 300      | PN40               | 305     | 155     | 185     | 585      | 500     | 695     | 295                      |
| 872-0350-00-60100100000                | 350      | PN40               | 345     | 170     | 205     | 650      | 550     | 770     | 350                      |
| 872-0400-00-60100100000                | 400      | PN40               | 385     | 305     | 235     | 700      | 600     | 845     | 435                      |
| 872-0450-00-60100100000                | 450      | PN40               | 415     | 305     | 240     | 760      | 650     | 900     | 550                      |
| 872-0500-00-60100100000                | 500      | PN40               | 445     | 305     | 245     | 805      | 700     | 960     | 700                      |
| 872-0600-00-60100100000                | 600      | PN40               | 505     | 305     | 280     | 925      | 800     | 1070    | 950                      |

(1) Face to face according to EN 558, ser. 48

