

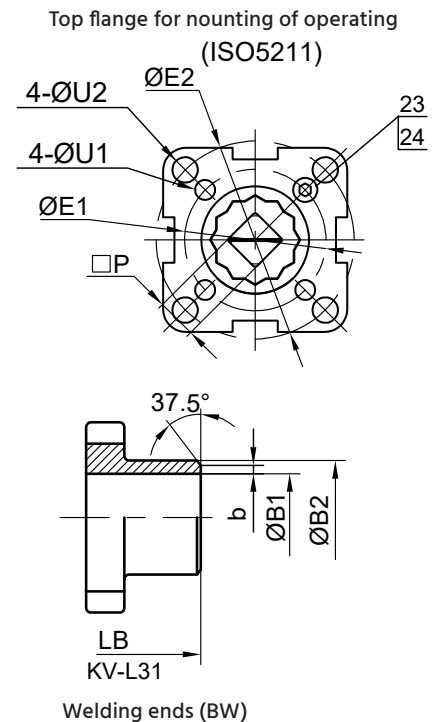
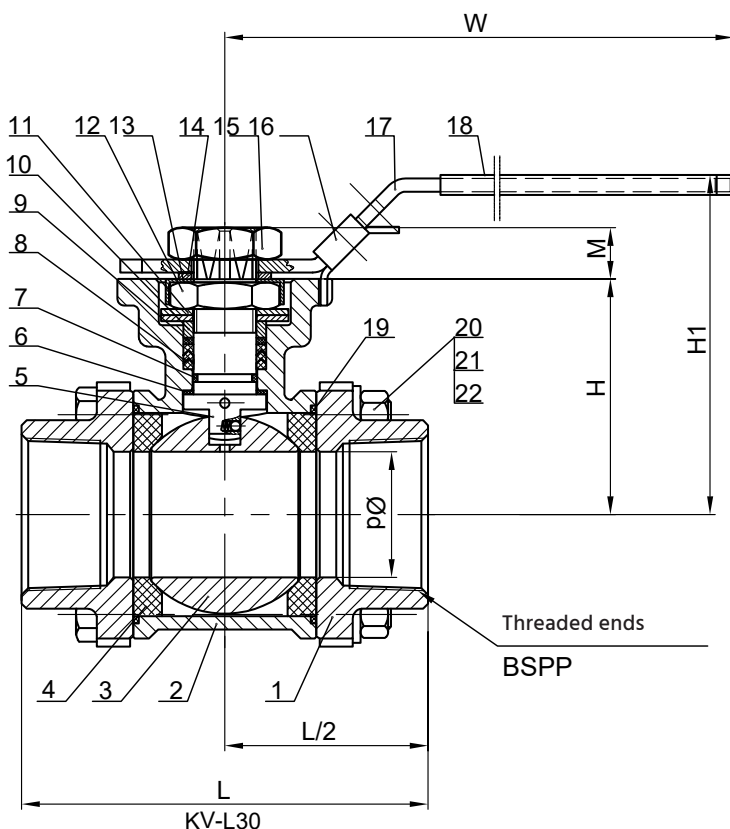


DESIGN

- according to MSS SP-110, EN12516
- full bore
- 3-PC body, floating ball, TFM 1600 seats
- KV-L30 – threaded BSPP ends acc. to ISO 228
- KV-L31 – welding ends (BW) – ASME B16.25 (ØB1 Sch40)
- ISO5211 top flange for direct mounting of operating locking device
- spindle protected against firing in case of overpressure
- compensating hole preventing the concentration of pressure in the space between ball and body
- antistatic (ball - spindle - body)
- flanges acc. to EN1092-1
- testing according to EN12266-1 P10, P11, P12 tightness A (water, air)
- production of castings in accordance with technical regulation TUV AD 2000-Merkblatt W0

CERTIFICATION

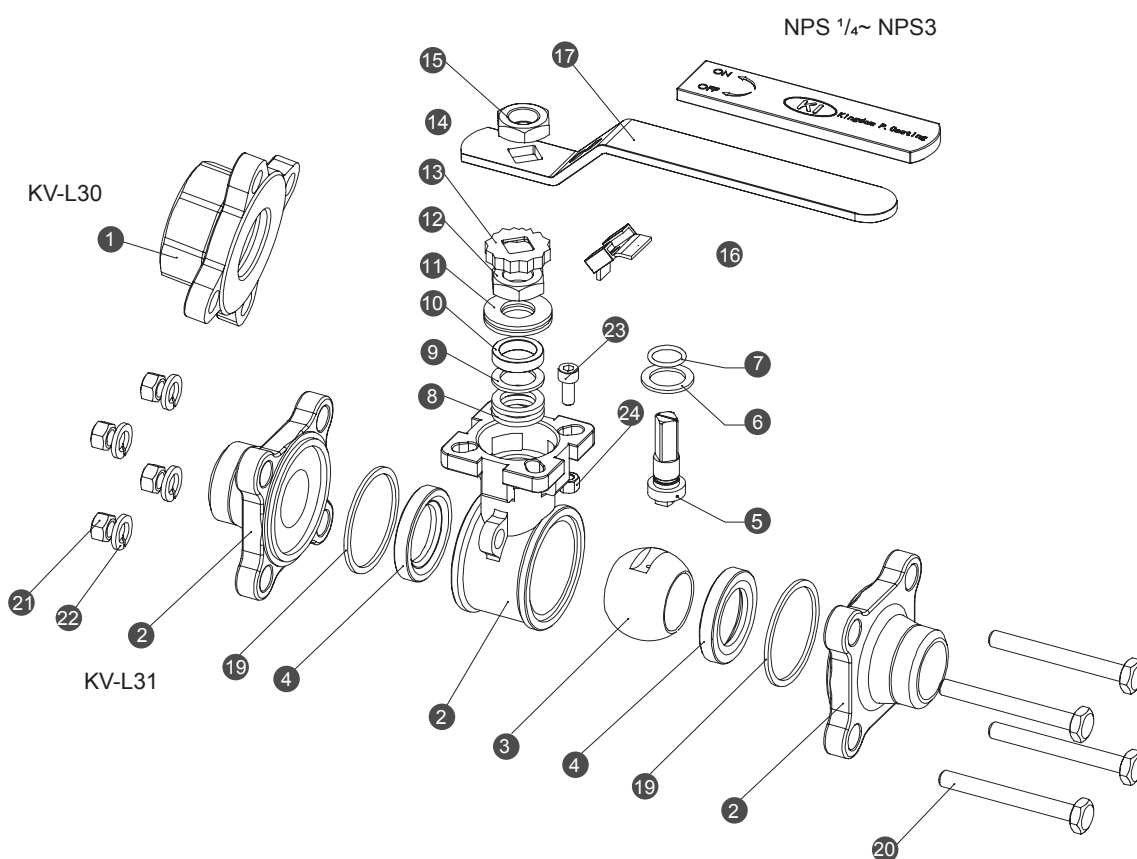
- PED 2014/68/EU
- NACE MR-0175
- TA-Luft/ISO15848-1



GENERAL DIMENSIONS AND WEIGHT

Dimensions are in mm.

| Size | DN | d | L | LB | B1 | B2 | b | H | H1 | W | P | M | E1 | E2 | U1 | U2 | HEX.B | ISO5211 | (kg) KV-L30 | (kg) KV-L31 |
|-------|----|------|-----|-----|------|----|-----|-------|-----|-----|----|----|----|-----|----|----|-------|---------|----------------|----------------|
| 1/4 | 8 | 10,6 | 75 | 70 | 9,3 | 18 | 1,6 | 42 | 72 | 147 | 9 | 9 | 36 | 42 | 6 | 6 | 28 | F03~F04 | 0,64 | 0,64 |
| 3/8 | 10 | 12,7 | 75 | 70 | 12,5 | 18 | 1,6 | 42 | 72 | 147 | 9 | 9 | 36 | 42 | 6 | 6 | 28 | F03~F04 | 0,65 | 0,61 |
| 1/2 | 15 | 15 | 75 | 75 | 15,8 | 22 | 1,6 | 42 | 72 | 147 | 9 | 9 | 36 | 42 | 6 | 6 | 28 | F03~F04 | 0,68 | 0,63 |
| 3/4 | 20 | 20 | 80 | 90 | 20,9 | 28 | 1,6 | 48,5 | 79 | 147 | 9 | 9 | 36 | 50 | 6 | 7 | 34,5 | F03~F05 | 0,95 | 0,91 |
| 1 | 25 | 25 | 90 | 100 | 26,7 | 34 | 1,6 | 58,5 | 89 | 177 | 11 | 11 | 42 | 50 | 6 | 7 | 42 | F04~F05 | 1,4 | 1,35 |
| 1 1/4 | 32 | 32 | 110 | 110 | 35,1 | 43 | 1,6 | 63 | 93 | 177 | 11 | 11 | 42 | 70 | 6 | 9 | 52 | F04~F07 | 2,21 | 2,08 |
| 1 1/2 | 40 | 38 | 120 | 125 | 40,9 | 50 | 1,6 | 71 | 103 | 197 | 14 | 14 | 50 | 70 | 7 | 9 | 59 | F05~F07 | 2,99 | 2,97 |
| 2 | 50 | 50 | 140 | 150 | 52,5 | 61 | 1,6 | 78,2 | 110 | 197 | 14 | 14 | 50 | 70 | 7 | 9 | 71,5 | F05~F07 | 4,5 | 4,3 |
| 2 1/2 | 65 | 63,5 | 185 | 190 | 62,7 | 76 | 2 | 100 | 150 | 267 | 17 | 17 | 70 | 102 | 9 | 11 | 86,5 | F07~F10 | 8,4 | 8,5 |
| 3 | 80 | 76 | 205 | 220 | 78,0 | 92 | 2 | 108,5 | 159 | 267 | 17 | 17 | 70 | 102 | 9 | 11 | 101 | F07~F10 | 12,3 | 12,3 |



CONSTRUCTION AND MATERIALS

| Pos. | Component name | Material |
|------|----------------------|--------------------------------|
| 1 | End cap BSPP/ BW | CF8M(1.4408)/ /CF3M(1.4409) |
| 2 | Body | CF8M(1.4408) |
| 3 | Ball | CF8M/F316 |
| 4 | Seats | TFM1600 |
| 5 | Spindle | 316 |
| 6 | Axial sliding washer | PTFE |
| 7 | O-ring | FKM |
| 8 | Packing | PTFE |
| 9 | Spacer ring | 50%SS+50%PTFE |
| 10 | Packing case | 316 |
| 11 | Disc spring | 301 |
| 12 | Spindle nut | A194-8 |
| 13 | Lock washer | 304 |

| Pos. | Component name | Material |
|------|-----------------------------|----------|
| 14 | Lever washer | 304 |
| 15 | Lever nut | A194-8 |
| 16 | Locking device | 304 |
| 17 | Hand lever | 304 |
| 18 | Cover of lever | Vinyl |
| 19 | Body seal | PTFE |
| 20 | Screws | A2-70 |
| 21 | Nuts | A2-70 |
| 22 | Washers | 304 |
| 23 | Stop screw | A2-70 |
| 24 | Stop nut | A2-70 |
| 27 | Cover of lever (DN80~DN150) | Vinyl |

FLOW COEFFICIENT Cv, Kv

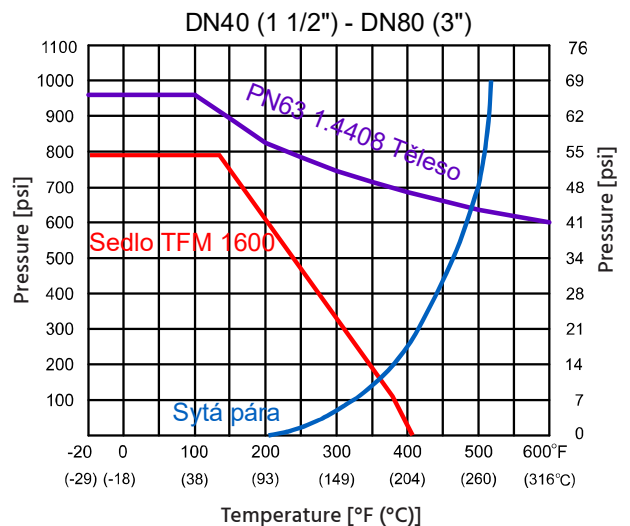
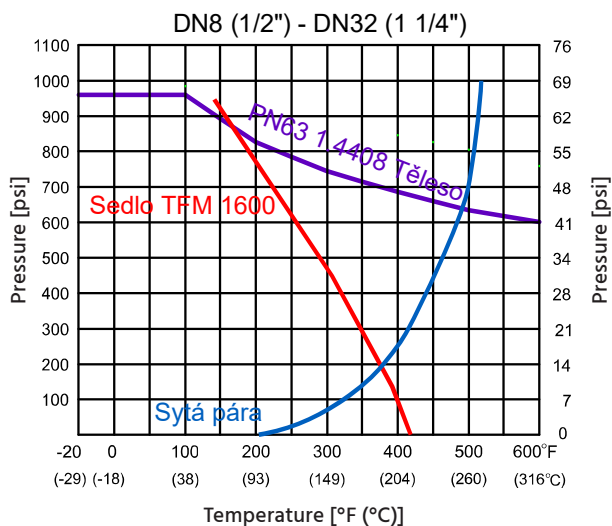
| Size ["] | DN | Cv [US gal. mm-1] | Kv [m³ .h-1] |
|----------|----|-------------------|--------------|
| 1/4 | 8 | 10 | 8,65 |
| 1/2 | 15 | 18 | 15,57 |
| 3/4 | 20 | 36 | 31,14 |
| 1 | 25 | 48 | 41,52 |
| 1 1/4 | 32 | 93 | 80,45 |
| 1 1/2 | 40 | 165 | 142,73 |
| 2 | 50 | 207 | 179,06 |
| 2 1/2 | 65 | 450 | 389,25 |
| 3 | 80 | 780 | 674,70 |

DEPENDENCE OF TORQUE ON PRESSURE DIFFERENCE ΔP

| Size ["] | DN | ΔP ₁ | | ΔP ₂ | | ΔP ₃ | | ΔP ₄ | | ΔP ₅ | |
|----------|----|-----------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|
| | | 5 bar | 75 psi | 10 bar | 150 psi | 16 bar | 300 psi | 50 bar | 700 psi | 63 bar | 1000 psi |
| | | [Nm] | [lb _f -in] | [Nm] | [lb _f -in] | [Nm] | [lb _f -in] | [Nm] | [lb _f -in] | [Nm] | [lb _f -in] |
| 1/4 | 8 | 4,5 | 40 | 4,5 | 40 | 4,5 | 40 | 4,5 | 40 | 4,5 | 40 |
| 1/2 | 15 | 5 | 44 | 5 | 44 | 5 | 44 | 5 | 44 | 5 | 44 |
| 3/4 | 20 | 6 | 53 | 6 | 53 | 6 | 53 | 6 | 53 | 6 | 53 |
| 1 | 25 | 10 | 88 | 10 | 88 | 11 | 97 | 11 | 97 | 11 | 97 |
| 1 1/4 | 32 | 13 | 115 | 13 | 115 | 15 | 133 | 17 | 150 | 19 | 168 |
| 1 1/2 | 40 | 19 | 168 | 19 | 168 | 22 | 195 | 24 | 212 | 26 | 230 |
| 2 | 50 | 25 | 221 | 29 | 258 | 32 | 283 | 34 | 310 | 38 | 336 |
| 2 1/2 | 65 | 40 | 354 | 45 | 400 | 49 | 434 | 54 | 478 | 59 | 522 |
| 3 | 80 | 65 | 575 | 72 | 644 | 81 | 717 | 90 | 796 | 101 | 894 |

For design of an actuator it is necessary to take into account the safety factor (recommended min. 30%).

PRESSURE-TEMPERATURE DIAGRAM



Sedlo = Seat
 Těleso = Body
 Sytá pára = Saturated steam

CERTIFICATES

ISO 9001

ISO 14001

OHSAS 18001

PED 2014/68/EU

AD2000-WO

AD2000-HP0

AD2000- A4

DNV

SIL 3

TA-Luft

ISO 15848-1

ATEX 94/9/EC

EN 14432

API 6D

API607 / ISO10497

CRN

CU-TR

CCS

TS

Lloyd's Register

Bureau Veritas



The data in the catalog sheet are for information only and the manufacturer reserves the right to make technical changes.