MONTAGNOLI INDUSTRIAL VALVES USA

AUTHORIZED REPRESENTATIVE

ARMOREP

INDUSTRIAL VALVES SINCE 2003 — KNIFE GATE VALVES · SLUICE GATES · C-BALL & SEGMENTED BALL VALVES

KNIFE GATE VALVE — FLEX LINE

Same valve, five body/sleeve combinations — pick by fluid, not by catalog



FLEX 1

Ductile iron body · ductile iron sleeve

The cost-effective build for moderate temperatures and pressures. Water and sanitation, agriculture, non-corrosive fluid handling, general industrial.



FLEX 2

Ductile iron body · stainless sleeve

Improved corrosion resistance across a wider temperature and pressure range. Food processing, light chemical, pharmaceutical, clean water systems.



FLEX 3

Ductile iron body · HDPE sleeve

Handles aggressive fluids at lower temperatures and pressures. Wastewater treatment, chemical processing, acidic and alkaline fluid handling.



FLEX 4

Stainless body · stainless sleeve

High corrosion resistance for sterile and high-purity service. Pharmaceutical, biotech, food and beverage, high-purity chemical, semiconductor.



FLEX 5 (TO 8")

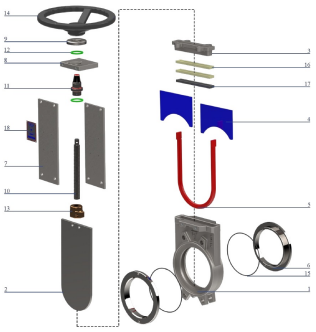
Stainless body · HDPE sleeve

Corrosive fluids at less extreme temperature and pressure. Chemical industry, water treatment, corrosive transport, environmental protection systems.

KNIFE GATE — SPECIFICATIONS & STANDARD CONSTRUCTION

Technical Specifications	
Size range	NPS 2–24 / DN 50–600
Body style	Single piece
Nominal pressure	150 psi (10 bar)
Temperature	-45 °F to 248 °F (-42 °C to 120 °C)
Drilling	ANSI/ASME B16.5 CL150
Face to face / design	MSS SP-81
Testing	MSS SP-61
Weight range	15–582 lb handwheel · 15–750 lb pneumatic

Standard Construction	Stainless Line	Ductile Line
Body	AISI 304 (CF8)	Nodular iron
Gate / stem / ring	AISI 304 (CF8)	AISI 304 (CF8)
Gland	AISI 304 (CF8)	Nodular iron
Seat	Neoprene	Neoprene
Packing	PTFE	PTFE
O-ring	EPDM	EPDM
Topworks	Nodular iron	Nodular iron



FLEX KNIFE GATE — EXPLODED VIEW

BILL OF MATERIALS — FLEX KNIFE GATE

Stainless line shown; ductile line substitutes nodular iron for body, gland and topworks

#	Part	Material
1	Body	304 stainless steel
2	Gate	304 stainless steel
3	Gland	304 stainless steel
4	Chest liner	PEAD
5	Seat	Neoprene
6	Sleeve	304 stainless steel

#	Part	Material
7	Leg	304 stainless steel
8	Yoke	304 stainless steel
9	Yoke block	304 stainless steel
10	Stem	304 stainless steel
11	Drive sleeve	304 stainless steel
12	Friction washer	Nylon

#	Part	Material
13	Stem nut	Brass
14	Handwheel	Ductile iron
15	O-ring	Rubber
16	Packing	PTFE
17	Packing support	Neoprene
18	Data plate	Aluminum

REPRESENTED IN UTAH, COLORADO & WYOMING BY ARMOREP

431 E Main Street, Suite 113, Vernal, UT 84078 | 435-280-2929 | sales@armorep.com | armorep.com

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SLUICE GATES

Stainless steel and ductile iron lines

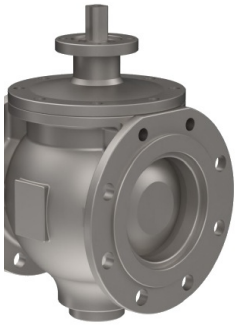


Built for water and wastewater treatment plants. The stainless line uses a modular welded frame — typically AISI 304 (CF8), with 304L, 316 and 316L available on request. The ductile iron line uses a single-piece frame and gate for rigidity and sealing, with SAE 1018, 1040 and GGG40 options.

- **Self-lubricating wedges** cut kinetic friction so the gate takes less force to operate — bronze SAE 660 on the ductile line.
- **Position-adjustable wedges** compensate for natural wear over the life of the gate while holding 100% sealing.
- **Ductile iron gates comply with AWWA C501-92** by default.
- **Sizes** 5.90" x 5.90" through 39.37" x 39.37" (150 x 150 to 1000 x 1000 mm); 58–275 lb.

DOUBLE ECCENTRIC C-BALL VALVE

Dirty liquids and fluids with suspended solids



A quarter turn gives full closure, which simplifies actuation and cuts actuator cost across manual, electromechanical, hydraulic and pneumatic systems. The double eccentric geometry keeps the obturator off the seat through most of the turning cycle — contact happens only in the final degrees of closing, so wear drops sharply and the valve seals dependably even in end-of-line service after long closed periods.

- **Body:** nodular iron ASTM A536.65.45.12 or carbon steel ASTM A216 GR. WCB
- **Obturator & shaft:** single-piece cast ASTM A743-CA40 with vulcanized BUNA-N, or nodular iron with BUNA-N ring and ceramic coating
- **Seat:** replaceable stainless, ASTM A743 CF8M
- **Sizes:** 3"–24" (80–600 mm), flanged ends
- **Ratings:** PN 10 and 16, 0 to 80 °C
- **Applications:** water and wastewater plants, alcohol and sugar, mining, steel, general liquid handling with suspended solids

SEGMENTED BALL VALVE

Modulating control and on-off in one body



Combines traits of a knife gate, globe and ball valve. Bidirectional bubble-tight shutoff with precise control in one design: a pressure-balanced seat seals completely at low operating torque, the protected sealing area extends service life, and the one-piece body carries pipeline loading without leak paths. The sharp leading edge cuts through viscous fluids, and field-replaceable components with external access keep maintenance cost down.

- **Body:** ASTM A216 WCB carbon steel or A351 CF8M (316); 316L and specialized alloys available
- **Ball:** A351 CF8M with hard chrome plating, specialized coatings, or Stellite 6 weld overlay
- **Liner & seat:** chrome iron, stainless with Stellite 6, or tungsten carbide — resilient seats for clean service, metal seats for solids
- **Sizes:** NPS 1–16 (DN 25–400), flanged or wafer
- **Ratings:** ASME Class 150 / 300 / 600; PN 10 / 16 / 25; -50 °F to 500 °F
- **Port:** standard, 60° and 30° with equal percentage flow. Leakage Class VI resilient, Class IV metal
- **Severe service:** ultra-hard erosion-resistant trim for digester level and blow, pulp rejects, stock dump, paper stock, black and green liquor

MATERIALS & ACTUATION OPTIONS

GATE

- AISI 304 (CF8), 316L (CF3M), 904L (CF2M)
- Duplex EN 1.4470
- Hastelloy, Hardox

BODY

- AISI 304, 316L, 904L; nodular iron
- Flex™ Unique Technologie, Thermoplastic™
- Duplex EN 1.4470, Hastelloy, Hardox

GLAND & STEM

- Gland: SAE 1020, ASTM A36, AISI 304, nodular iron
- Stem: AISI 304, AISI 420

ACTUATION

- Manual, pneumatic, electric motor, hydraulic cylinder, double acting
- Limit switches, solenoids, IP65 positioner, stem extensions, lock in place

WHERE THE LINE FITS

- **Water & wastewater** — headworks, channel isolation, sludge and grit lines
- **Mining & mineral processing** — slurry isolation and tailings
- **Pulp, paper, sugar & alcohol** — the original design market, 20+ years in
- **Power generation** — ash handling and process isolation
- **Chemical & petrochemical** — corrosive service by sleeve and trim selection
- **Steel and heavy industrial** — abrasive and solids-laden lines

MONTAGNOLI USA — industrial valves since 2003
3341 75th Ave, Hyattsville, MD 20785
montagnoli.net

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ARMOREP — Authorized Representative, UT / CO / WY
431 E Main Street, Suite 113, Vernal, UT 84078
435-280-2929 | sales@armorep.com | armorep.com