

KNIFE GATE VALVES

EXES

PN10

Wafer body

Resilient EPDM seat

DN50 to DN400

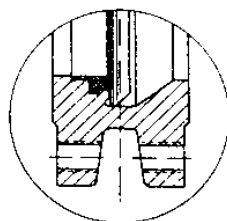


EXES

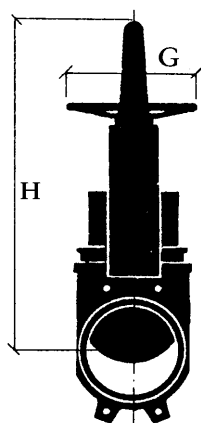
Yoke top structure

Stainless steel stem

Various body, gate and seat materials



Seating arrangement



ORBINOX

Applications - non-shock on/off duties in PN10 piping systems within the P/T limits shown. Will handle clean, dirty, viscous and corrosive liquids; sludge; abrasive and fibrous slurries; clean, dirty and corrosive gases; dry materials. Principal industries include mining, pulp and paper, water treatment, sewage, food processing, chemicals, steel plants, power generation, sugar. Positive seating and tight shut-off are achieved even on thick slurries and suspended solids. The body design incorporates 'relief' grooves around the seat which permit the gate to push solids aside which are then flushed out when the valve opens.

Specification - the resilient EPDM terpolymer seat and chamfered edge of the gate ensure leak-proof sealing for all types of media, including hi-temp water up to 121° Celsius. The wafer design is lightweight and saves space. The corrosion resistant stainless steel gates have a very smooth finish on both faces; the gates may be Stellite or mirror finished with a hard chrome coating. The chamfered gates cut through or displace solid materials. Long life packing ensures a tight seal with minimum gland pressure. The round port configuration produces high K_v and low Δp . Quality assurance meets the requirements of ISO 9001 and BS 5750 Part 1.

Flow characteristics - K_v

DN	50	80	100	150	200	250	300	350	400
K_v	206	486	894	2 098	3 835	5 375	8 084	10 750	14 190

P/T - standard non-shock ratings

DN50 to DN250 - 10 bar; maximum temperature 100° Celsius*

DN300 to DN400 - 7 bar; maximum temperature 100° Celsius*

* assumes square braided high temperature flax plus EPDM O-ring.

Higher temperature packings up to 540° Celsius capability may be specified.

Materials options

Body - cast iron ASTM A126; stainless steels 316 (ASTM A351 CF8M); 317 (ASTM A351 CG8M).

Gate - stainless steels 304, 316 and 317;

Seat - EPDM.

Manual operators

Handwheels with stem protection cover are standard.

Lever for rapid operation - subject to the sizes and Δp limits shown.

DN	50 to 100	150	200	250*	300*
maximum Δp	5,25	3,15	1,75	1,4	1,0

* lever operation not recommended.

Dimensions mm / Weights - for valves fitted with handwheels

DN	in	G	H	F/F	kg
50	2	200	428	40	8
80	3	200	481	50	10
100	4	200	521	50	12
150	6	250	656	60	19
200	8	310	826	60	33
250	10	310	1 026	70	51
300	12	310	1 126	70	64
350	14	410	1 318	96	105
400	16	410	1 423	100	133

Options - sizes DN450 to DN2400; chainwheels; bevel gear operators; linear pneumatic and electric actuators and accessories; deflector cone; bodies and gates in Hastelloy, titanium, carbon steel; Halar, polyurethane, reinforced fibreglass, fluorelastomer linings; flush and cleaning ports; PTFE slide guides; high temperature packings.

