

The Series 21/60 is a resilient seat, wedge gate valve, rated to PN25, suitable for use with water and neutral liquids, to a maximum temperature of +70°C.

Features:

- Cap top as standard.
- Ductile iron wedge, fully vulcanised with EPDM.
- O-ring stem seals replaceable under pressure.
- Fully corrosion resistant construction.
- Fusion bonded epoxy coating.
- Body/bonnet bolts sealed with hot melt.
- Bosses for sampling or by-passing. (undrilled)

Options:

- Handwheel.
- Electric actuation.
- Bevel or spur gearboxes.
- Alternative flange drillings.
- Clockwise to open (red insert), clockwise to close (white insert).



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TESTS

Hydraulic test to BS EN 1074-1 & 2.
Seat: 1.1 x PN (PFA) Body: 1.5 x PN (PFA) Operating torque test.

SERVICE CONDITIONS

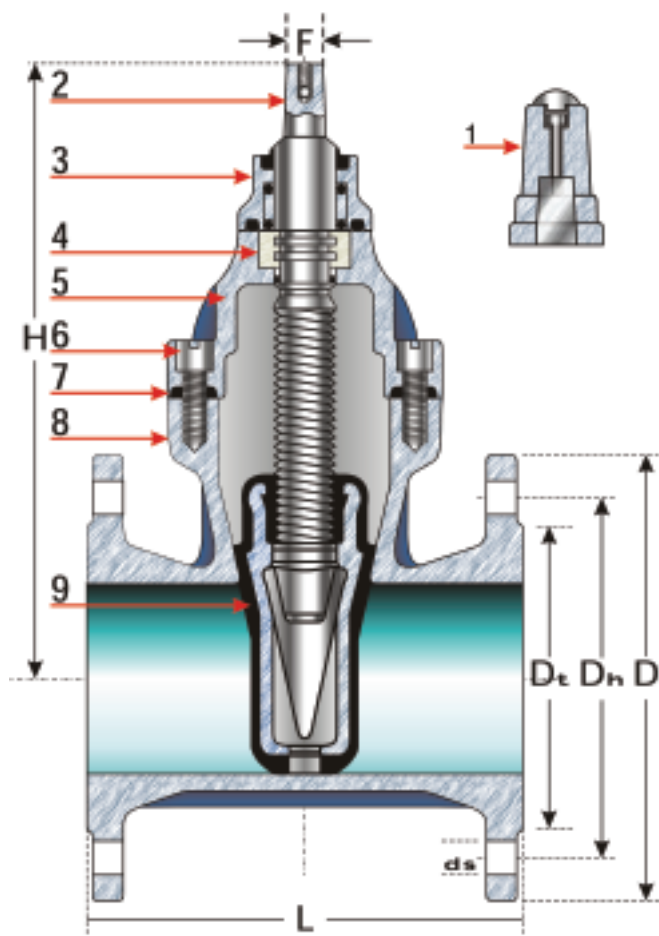
Maximum Working Pressure: 25 Bar. (2.5 mpa).
Temperature Range: -10°C to +70°C. Insulation essential for temperatures of 0°C and below.

APPLICABLE STANDARDS

To BS 5163: pt 1 & 2 type B. BS EN 1074-1 & 2. Stem sealing replaceable under pressure. Overall length to BS 5163 Pt1(BS EN 558-1).
Flanges and drilling to BS EN 1092-2.

MATERIALS OF CONSTRUCTION

No.	DESCRIPTION	MATERIAL
1	Stem Cap	Grey cast iron, BS EN 1561 EN-GJL-250 complete with cap screw BZP GR 8.8 to BS 4168: Part 1. (DIN 912).
2	Stem	Stainless steel, BS 10088-1.No.1.4021.
3	Gland Flange Assembly	Ductile iron, BS EN 1563. EN-GJS-500-7 complete with polyamid bushing containing 1 wiper ring + 3 O rings of NBR and 2 bolts bright zinc plated Gr 8.8, BS 3692: (DIN 933).
4	Thrust Collar	DZR brass, BS EN 12164, CW602N.
5	Bonnet	Ductile iron, BS EN 1563 EN-GJS-500-7.
6	Bonnet Bolts	BZP Gr 8.8: up to DN 150 BS 4168: (DIN 912) sealed with hot melt. Gr12-9 DN200 & above.
7	Body, Bonnet Seal	EPDM rubber, ESW-70, WRAS listed.
8	Body	Ductile iron, BS EN 1563 EN-GJS-500-7.
9	Wedge Assembly	Ductile iron, BS EN 1563 EN-GJS-500-7. Fully encapsulated with ESW-70 rubber, complete with wedge nut of DZR brass BS EN 12164, CW602N.
	Coating	Internal and external, electrostatically applied blue epoxy to WIS 4-52-01 Class B. Epoxy powder is WRAS listed.



DIMENSIONS & WEIGHTS

Ref Nos.	DN	L	H	Dt	D	Dh	ds	Holes	F	Weight
		mm	mm	mm	mm	mm	mm	no.	mm	Kilos
21-050-60X7	50	178	279	98	165	125	19	4	19	16
21-080-60X7	80	203	294	133	200	160	19	8	19	22
21-100-60X7	100	229	324	159	235	190	23	8	19	30
21-150-60X7	150	267	429	214	300	250	28	8	24	52
21-200-60X7	200	292	531	274	360	310	28	12	27	80
21-250-60X7	250	330	614	331	425	370	31	12	27	132
21-300-60X7	300	356	690	389	485	430	31	16	27	180
21-350-60X7	350	381	867	446	555	490	34	16	32	295
21-400-60X7	400	406	867	503	620	550	37	16	32	300

X = 2 for clockwise to close, 3 for clockwise to open.

AVK GATE VALVE, PN 25, CTC

21/60
003

Flanged gate valve to BS EN 1074-2 / BS 5163-1 type B, designed according to BS5163/ B, Face to face according to EN 558 table 2 basic series 3.
Standard flange drilling to EN1092-2 (ISO 7005-2)

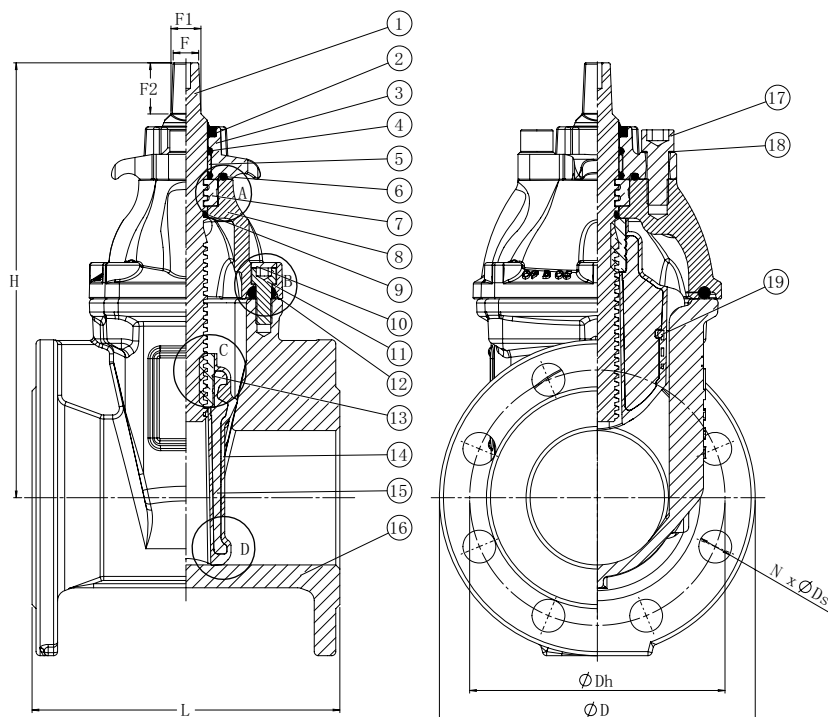
Use:	For water and neutral liquids to max. 70°C
Hydraulic tests:	Seat: 1.1 x PN Body: 1.5 x PN(PN25)
Applicable Standards:	Design to BS 5163 & EN 1074 Pt.1&2 Flange cast to EN 1092-2: PN25 Drilling to EN 1092-2:PN25
Options:	Handwheel Extension spindle Flange adaptor

Materials:

Body and bonnet gland flange	Ductile iron, GGG-50, to DIN 1693 (BS 2789 grade 500-7)
Gland flange bolts	Zinc coated steel 8.8
Coating	Internal and external fusion bonded epoxy WRAS & GSK approved
Stem	Stainless steel, EN10088, No 1.4401
Stem sealing	NBR wiper ring, 3 NBR O-rings
Wedge	Ductile iron, GGG-50, core fully encapsulated with EPDM rubber ESW to WRAS and having integral wedge nut of dezincification resistant brass, CZ 132 to BS 2874
Stem collar	Dezincification resistant brass, CZ 132 to BS 2872
Bonnet bolts	Zinc coated steel 8.8, sealed with hot melt
Bonnet gasket	EPDM rubber ESW to WRAS
Bushing	Polyamid PA6.6



For further details see section "Technical Information".
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A. Stem sealing

Stem sealing exchangeable under pressure with three independent stem seals:

- A NBR wiper ring protects against dirt from outside.
- A polyamid bearing with 2 NBR O-rings ensures low friction
- An O-ring protects the stem collar and prevents leakage when exchanging stem seals under pressure.

B. Body/bonnet connection

The unique assembly of the valve body and bonnet ensures a durable tightness:

- A round rubber bonnet gasket fits into a recess in the valve bonnet preventing it from being blown out by pressure surges.
- The bonnet bolts are countersunk in the valve bonnet, encircled by the bonnet gasket and sealed with hot melt. Thus there is no risk of corrosion as the bolts are not exposed to the medium or soil.

C. Wedge nut

The fixed, integral wedge nut reduces the number of movable valve parts thus minimizing the risk of corrosion and malfunction. The wedge nut is made of dezincification resistant brass with lubricating abilities providing optimum compatibility with the stainless steel stem.

D. Vulcanized wedge

The ductile iron core is fully vulcanized with drinking water approved EPDM rubber internally and externally. No iron parts are exposed to the medium and the excellent rubber vulcanization prevents creeping corrosion underneath the rubber. Guides in the wedge and on the valve body ensure a uniform closure regardless of high pressure. Safe operation is ensured, as the guides prevent overloading of the stem. The wedge has a large through bore and as there are no hollows in the core, stagnant water or impurities cannot collect and cause contamination.

Component list

1. Stem	11. Bolt
2. Wiper ring	12. Gasket
3. Gland flange	13. Wedge nut
4. O-ring	14. Wedge rubber
5. Bushing	15. Wedge core
6. O-ring	16. Body
7. Thrust collar	17. Bolt
8. Bonnet	18. Washer
9. O-ring	19. Wedge shoe
10. Hot melt	

Reference nos. and dimensions

AVK ref. nos.	DN mm	L mm	H mm	F mm	F1 mm	F2 mm	D mm	Dh mm	Ds mm	Number of bolts	Theoretical weight kg
21-050-6007482	50	178	279	19	22	38	165	125	21	4	15
21-080-6007482	80	203	294	19	22	38	200	160	21	8	17
21-100-6007482	100	229	324	19	22	38	235	190	25	8	27
21-150-6007482	150	267	429	24	28	42	300	250	30	8	51
21-200-6007482	200	292	521	27	31	47	360	310	30	12	78
21-250-6007482	250	330	614	27	31	47	425	370	33	12	120
21-300-6007482	300	356	690	27	31	47	485	430	33	16	188
21-400-6007482	400	406	867	32	37	55	620	550	39	16	297