

Knife Gate Valves Series 550-553

Knife Gate valve with DA Actuator



Main Features :-

Uni Directional

Cast Iron OR SS 316 body and gate

To suit PN10 flanges

EPDM seal

Wafer pattern

Double acting actuator

Available with electric actuator as option



TYPE: 550-553 KNIFE GATE

Technical Details:-

Max. allowable pressure (PS)	DN 50 to 200	10 bar
	DN 250	8 bar
	DN 300	6 bar
	DN 350 to 400	4 bar
	DN 450 to 600	3 bar
Allowable temperature (TS)	See below	
Room temperature	-20 °C / +60 °C	
Compressed air supply	5 bar min. / 7 bar max.	
Fluid	Prohibited use on gases of group 1 for DN>100	

TS / seat	NBR	EPDM	FKM	PTFE	METAL
170: Cast iron	-10°C	+0°C	-10°C	+0°C	-
172: Stainless steel	+80°C	+110°C	+150°C	+180°C	-
176: Cast iron	-	-	-	-	-10°C +90°C
176: Cast iron + Graphite gland pack	-	-	-	-	-10°C +200°C

DIRECTIVES AND CONSTRUCTION STANDARDS

	Standard
97/23/EC Pressure Equipment Directive	Category I module A
Flanges PN10 dimensions	EN 1092-2
Flanges ANSI150 dimensions	ANSI B16.5
Valve testing	EN 12266-1



ISO 9001:2015 Accredited Company

Tel: +44(0)1386 552369

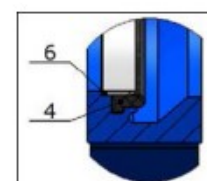
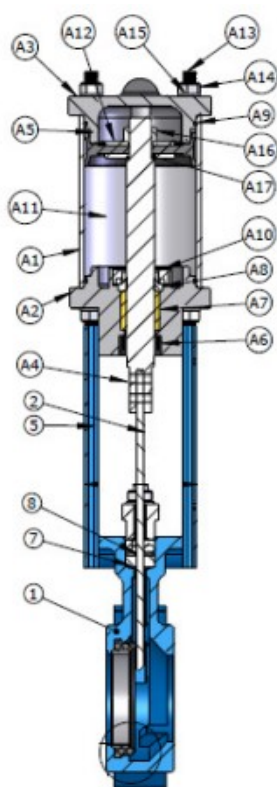
Fax: +44(0)1386 554227

sales@allvalves.co.uk

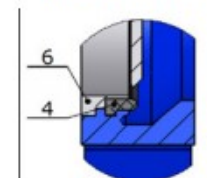
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Allvalves Online Ltd, Automation House, Unit 2, Pershore, WR10 2DF UK

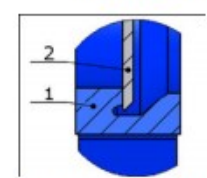
UNIDIRECTIONAL CONSTRUCTION



STANDARD SEAT



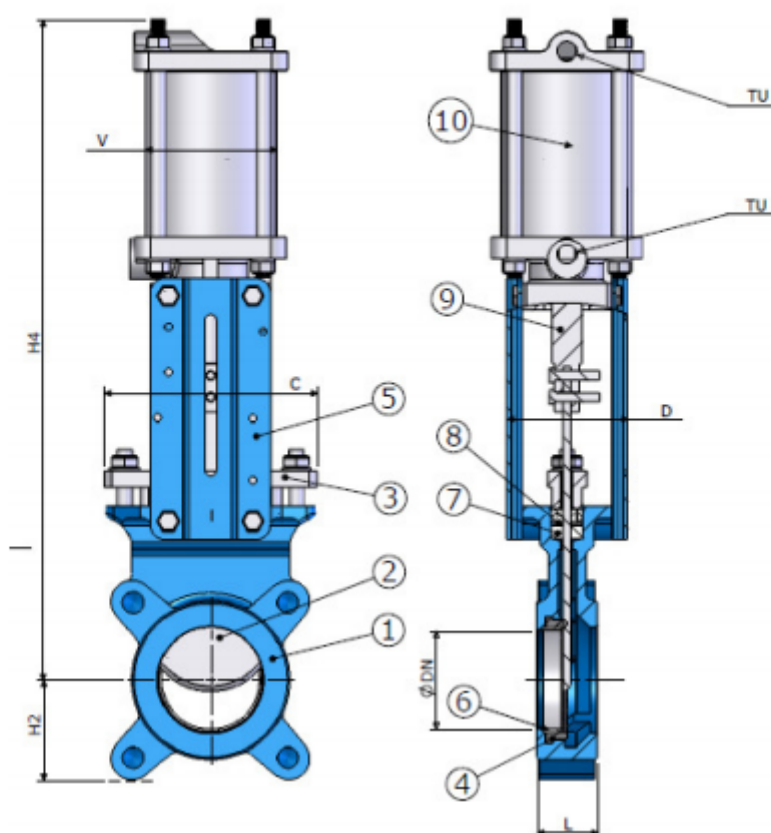
METAL SEAT



REINFORCED SEAT

#	Item	S-170 cast iron version	S-176 cast iron version	S-172 stainless steel version
1	Body	EN-GJL 250 Cast iron		Stainless steel A351 CF8M / 1.4408
2	Gate	AISI 304 Stainless steel		AISI 316 Stainless steel
3	Gland follower DN50-200	Aluminium		Stainless steel A351 CF8M / 1.4408
3	Gland follower DN250-300	EN-GJL 250 Cast iron		Stainless steel A351 CF8M / 1.4408
4	Seat	NBR	METAL	EPDM
5	Bracket	Epoxy-coated Carbon steel		Epoxy-coated Carbon steel
6	A-ring	AISI 304 Stainless steel		AISI 316 Stainless steel
7	Gland packing	PTFE		PTFE
8	O-ring	NBR		EPDM
A1	Cylinder housing	ASTM 6063 Aluminium		
A2	Base end of the cylinder	AS10G Aluminium		
A3	Actuator top cover	AS10G Aluminium		
A4	Stem	AISI 410 Stainless steel		
A5	Piston	NBR		
A6	Lip seals	PU		
A7	Guide pipe	Bronze		
A8	Gasket	PU		
A9	O-ring	NBR		
A10	Locking nut	AISI 410 Stainless steel		
A11	Flat washer	Carbon steel		
A12	Washer	Carbon steel		
A13	Bolt	8.8 Steel		
A14	Nut	Zinc-plated steel		
A15	Washer	Steel		
A16	Self-locking nut	Steel		
A17	O-ring	NBR		

DIMENSIONS (mm)



DN	H2	H4	C	D	L	PN 10 Flanges			Weight (Kg)
						Ø K	n	M	
50	63	400	125	92	40	125	4	M16	9
65	70	442	140	92	40	145	4	M16	11
80	92	483	155	92	50	160	4	M16	12
100	105	546	175	92	50	180	4	M16	13
125	120	630	190	102	50	210	4	M16	18
150	130	692	220	102	60	240	4	M20	22
200	160	869	275	120	60	295	4	M20	40
250	198	1032	325	120	70	350	6	M20	50
300	234	1182	380	120	70	400	6	M20	65
350	256	1379	440	290	96	460	10	M20	120
400	292	1535	495	290	100	515	10	M24	150
450	308	1677	550	290	106	565	14	M24	188
500	340	1839	615	290	110	620	14	M24	220
600	400	2145	715	290	110	725	14	M27	268

PNEUMATIC ACTUATION

Suggested standard actuation under the following conditions:

- Double-acting linear actuator with aluminium enclosure
- Lubricated compressed air supply from 5 to 7 bar

Operators are protected from the gate movements by lateral gate guards

DN	V - cylinder int. Ø (mm)	Cylinder volume (l)	TU - port connections
50	96	0.4	BSP ¼"
65	96	0.5	BSP ¼"
80	96	0.6	BSP ¼"
100	115	1	BSP ¼"
125	138	1.9	BSP ¼"
150	138	2.3	BSP ¼"
200	175	4.8	BSP ¼"
250	218	9.4	BSP ¼"
300	218	11.2	BSP ¼"
350	270	20	BSP 3/8 "
400	270	23	BSP 3/8 "
450	382	51	BSP ½"
500	382	57	BSP ½"
600	382	70	BSP ½"

*Unloaded operating time given for information purpose only. May vary depending on the medium

For any other working conditions, please contact us.

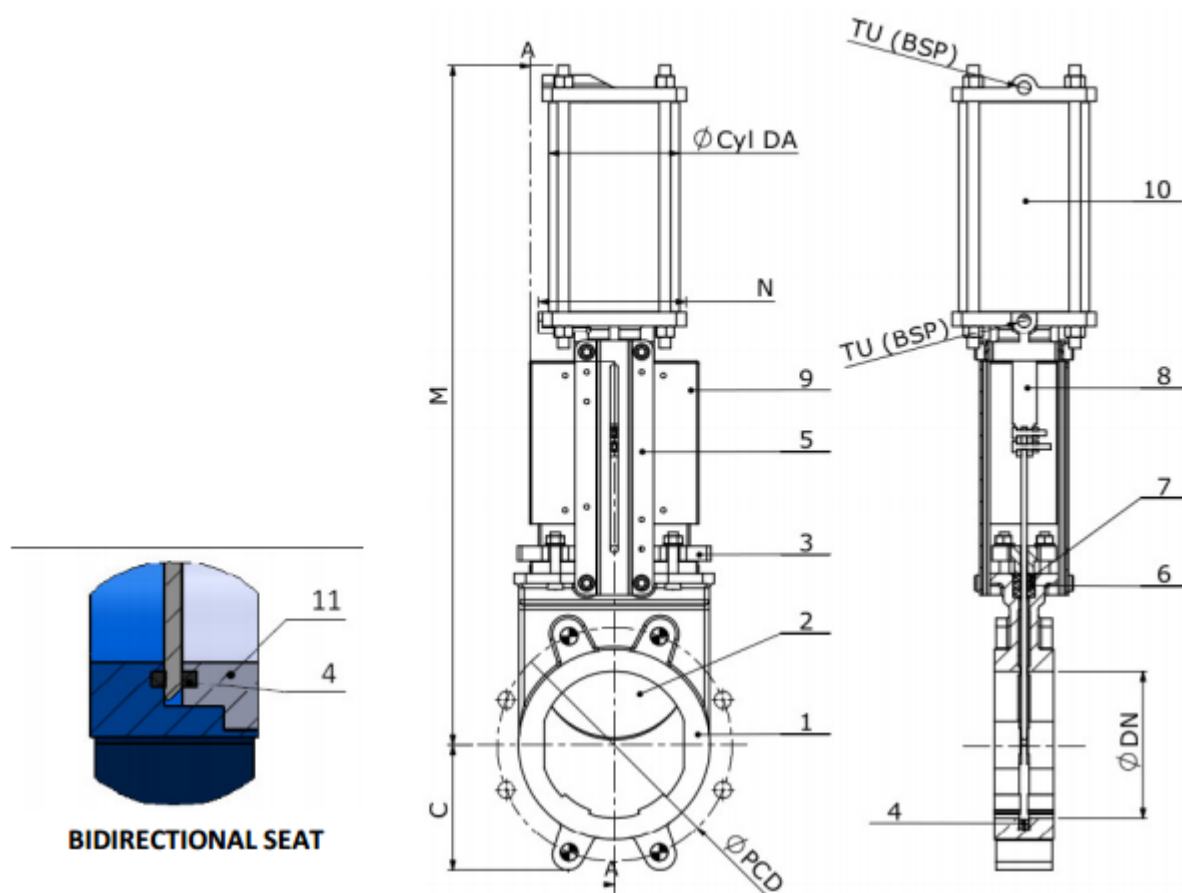
ACTUATION OPTIONS

#	
1	Compressed air supply filter-regulator
2	Compressed air supply filter-regulator-lubricator
3	5/2 monostable electrovalve 230 V AC, 110 V AC, 48 V AC, 24 V AC, 24 V DC, 12 V DC
4	Exhaust brake
5	Exhaust silencer
6	Quick exhaust valve
7	Télémécanique XCKM 115 mechanical limit switches
8	IFM IFS 2012 position sensors, connection M12
9	P+F position sensors NBB4, NCB2
10	Single effect set with air tank
11	Spring return actuator
12	Hand-operated actuator
13	Stainless steel bracket
14	Stainless steel side covers
15	Connection protection cover
16	3 positions control (open, close, intermediary)

VALVE OPTIONS

#	
1	NBR, EPDM, PTFE, FKM, metal-metal seats
2	High temperature graphite filled gland pack
3	Deflector
4	Bi-directional tightness (see next page)
5	Through conduit gate
6	Flanges ANSI150
7	PN25 body
8	Flushing holes

S-178 VERSION: bidirectional tightness



#	Item	S-178 cast iron version
1	Body	EN-GJL 250 Cast iron
2	Gate	AISI 304 Stainless steel
3	Gland follower DN 50-200	Aluminium
3	Gland follower DN 250-300	EN-GJL 250 Cast iron
4	Seat	NBR
5	Bracket	Epoxy coated carbon steel
6	O-ring	NBR
7	Gland packing	PTFE
8	Stem	AISI 410 stainless steel
9	Side covers	Epoxy coated carbon steel
10	Actuator	Aluminium
11	Ring nut	F304 stainless steel

Max. allowable pressure (PS)	DN 50 to 200	10 bar
	DN 250	8 bar
	DN 300	6 bar
	DN 350 and 400	4 bar
	DN 450 to 600	3 bar
	DN 700 to 1200	2 bar

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