



A.C. VALVES cc

# ACV RF KNIFE GATE VALVE WAFER TYPE



# ACV RF KNIFE GATE VALVE WAFER TYPE, DIMENSIONS AND WEIGHTS

**BODY:** SG 42 IRON BODY, SOFT RUBBER LINED BODY. OPTIONAL COATINGS HALAR PTFE, GLASS, CERAMICS, POLYURETHANE, FBE (EPOXY)

**BLADE:** AISI 304L S/STEEL, POLISHED (STANDARD)  
OPTIONAL: AISI 316 S/STEEL, TITANIUM, SAFF2205

**RISING SPINDLE & REV NUT:** AISI 304L S/STEEL PVC BELLOW DUST PROTECTION WITH TOP SINDLE GUARD PROTECTION (STANDARD)  
OPTIONAL: AISI 316 S/STEEL BRONZE (TRUST BEARING STANDARD ON 300MM & BIGGER)

**PILLAR PLATES:** MILD STEEL FUSION BONDED EPOXY COATED (STANDARD),  
OPTIONAL 304L, 316L S/STEEL

**GLAND FOLLOWERS:** MILD STEEL FUSION BONDED EPOXY COATED (STANDARD),  
OPTIONAL 304L, 316L S/STEEL

**SEALS:** NITRILE SEAL, REINFORCED MOULDED (STANDARD),  
MAX TEMP 90 DEGREES CELSIUS, OPTIONAL IN VARIETY OF RUBBER & URETHANE OR PTFE.

**HANDWHEEL & TOP PLATES:** SG42 IRON FUSION BONDED EPOXY COATED (STANDARD),  
OPTIONAL 304L, 316L S/STEEL

**ALL FASTENERS:** HT 8.8 PLATED (STANDARD), OPTIONAL 304L, 316L S/STEEL

**PRESSURE RATING:** DN50-150 = 1600KPA  
DN200-600 = 1000KPA  
LARGER BORE AVAILABLE DN700 - DN1200 (SEE RF LB DATASHEET)

**OPTIONAL EXTRAS:** SOFT RUBBER LINED BODY  
POLYURETHANE LINED BODY  
PU DEFLECTING CONE  
NI HARD DEFLECTING CONE  
TOP WORKS BOX ENCLOSURE COVERS

**GLAND PACKING:** WOVEN ACRYLIC PTFE (STANDARD)

**SOFT RUBBER LINED**



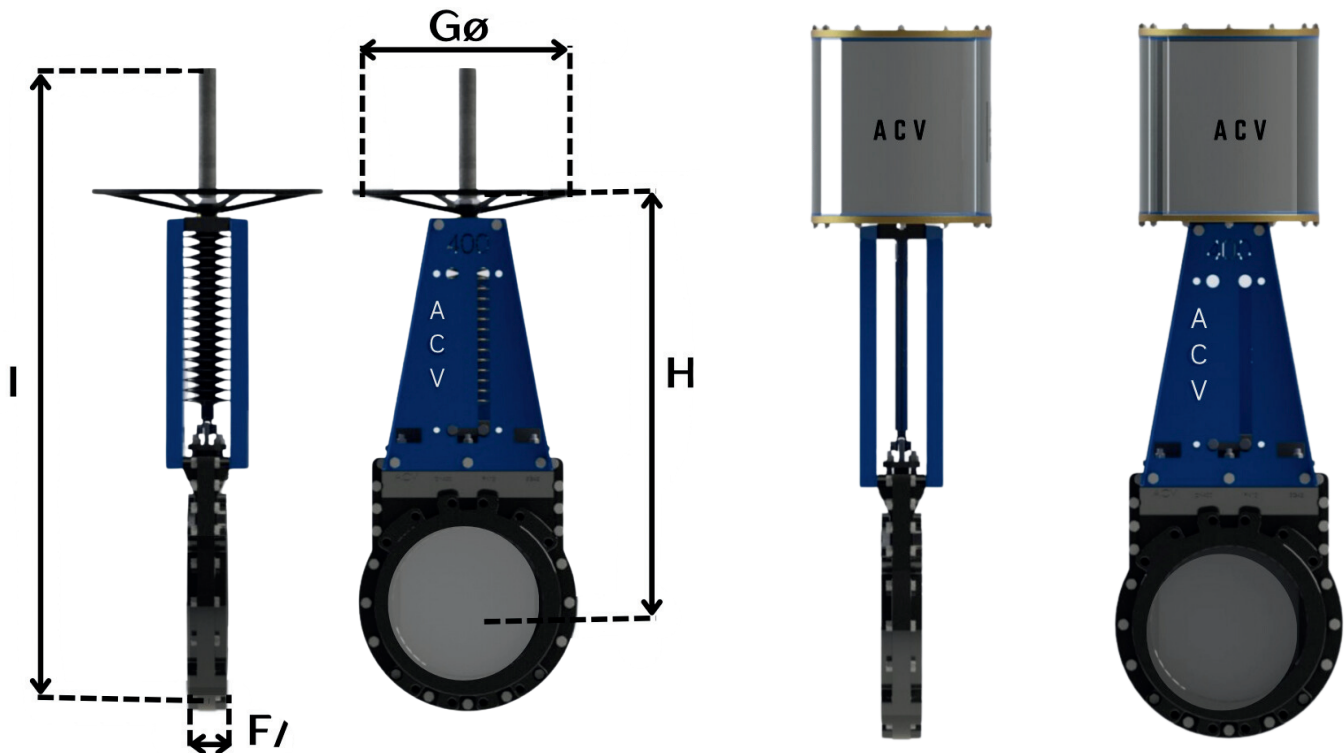
**POLYURETHANE LINED**



**FBE COATED**



# ACV RF WAFER KNIFE GATE VALVE DIMENSIONS AND WEIGHTS



SG42 IRON HANDWHEEL - DN50 TO DN450  
 MILD STEEL HANDWHEEL - DN500 TO DN1200  
 PN16 RATED VALVE UP TO DN600 SIZE - ON REQUEST

## Dimensions (mm) and Weights (kg)

	SIZE	FBE F/F	SRL F/F	PU F/F	G Ø	H	I	+ KG HAND WHEEL	PRESSURE RATING	
	50	43	49	49	255	370	560	13	PN16	
	65	46	52	52	255	370	560	14	PN16	
	80	46	52	52	255	400	600	15	PN16	
	100	52	58	58	255	435	650	19	PN16	
	125	56	62	62	300	500	695	29	PN16	
	150	60	68	68	300	560	850	33	PN16	
	200	72	80	80	400	665	1030	55	PN10	
	250	76	84	84	400	735	1170	70	PN10	
	300	80	88	88	500	860	1400	102	PN10	
	350	78	86	86	500	985	1610	142	PN10	
	400	100	108	108	500	1080	1760	171	PN10	
	450	100	108	108	700	1180	1930	212	PN10	
	500	110	120	120	700	1350	2200	307	PN10	
	600	130	140	140	1000	2100	3000	455	PN10	
	700	150	162	162	GEARBOX	-	3149	757	PN8	
	750	150	162	162	GEARBOX	-	3350	970	PN7	
	800	160	172	172	GEARBOX	-	3587	1172	PN6	
	900	180	192	192	GEARBOX	-	3850	1635	PN4	
	1000	200	212	212	GEARBOX	-	4160	1925	PN3	
	1200	212	224	224	GEARBOX	-	4975	3650	PN3	

## ACV RF WAFER KNIFE GATE VALVE KEY FEATURES

- **BI-DIRECTIONAL SEALING** - GUARANTEES LEAK-PROOF PERFORMANCE IN BOTH DIRECTIONS OF FLOW.
- **RISING SPINDLE.**
- **BUILT-IN PTFE SCRAPERS** - MAINTAINING THE BLADE IN A CLEAN AND DEBRIS-FREE CONDITION TO ENSURE SMOOTH OPERATION.
- **MOUNTING PLATE** - SUPPORTS MANUAL, PNEUMATIC, OR ELECTRIC ACTUATION FOR FLEXIBILITY.
- **SELF-CLEANING ACTION** - STOPS MATERIAL ACCUMULATION AND GUARANTEES CONSISTENT PERFORMANCE.
- **GATE GUIDED THROUGHOUT FULL STROKE:** OFFERS PRECISE CONTROL AND PREVENTS MISALIGNMENT.
- **FULL BORE UNRESTRICTED FLOW AREA** - ENHANCES FLOW CAPACITY AND REDUCES PRESSURE DROP.
- **10BAR PRESSURE RATING** - 150 PSI CWP (10 BAR) PRESSURE RATING, SUITABLE FOR VARIOUS INDUSTRIAL APPLICATIONS.
- **YOKE DESIGN** - FACILITATES EASY ACCESSORY MOUNTING AND FEATURES SAFETY LOCKOUTS
- **MECHANICALLY SECURED MOULDED BODY SEAL** - PROVIDES A SECURE, LEAK-PROOF SEAL FOR RELIABLE OPERATION (REPLACEABLE).



# ACV RF WAFER KNIFE GATE VALVE USER GUIDE

## INSTALLATION

Remove any dirt in the valve that may have accumulated during storage.

Ensure that the pipeline has been cleared of all foreign objects before installation.

Ensure that no forces are transmitted from the pipeline by employing the correct pipe supports and expansion joints.

Pipe flange misalignment shall under no circumstances be corrected by tightening of the flange bolts. Such practice would result in undue stresses. The resulting distortion could affect the operation of the valve.

Always use a good quality gasket material. It is advisable to use rubber or non-asbestos gaskets. Bolts should be tightened, as per good engineering practise, radially opposite i.e. 12, 6, 9 and 3 o'clock. Initial and final tightening must follow the same sequence. If a leak still appears, tighten the bolts evenly until the leaking stops but do not exceed 90% of the bolts proof load.

Set screws are required to fit tapped flange holes. Fit all screws and bolts before tightening. Always ensure that the valve is pulled up evenly with its mating flanges. These flanges must be aligned axially with their end faces square to the axis, flat and parallel to each other, Do not install upside down lower angle than horizontal.

Pneumatic operated Valves

If installed in the horizontal to 30 degree up vertical position, the actuator needs additional support (bracing)

Do not install upside down lower angle than horizontal

Prefer to install vertically up

Use clean compressor air (lubricated preferably)

## OPERATING INSTRUCTION

The blade of the knife gate valve slides from fully closed to fully open.

When throttling accelerated wear will happen

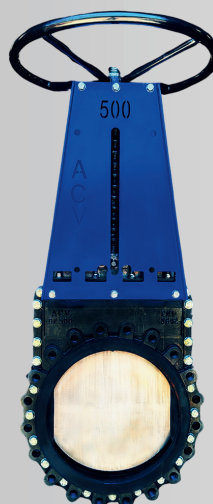
### NOTE:

DO NOT ATTEMPT TO OVER CLOSE OR OVER OPEN THE VALVE BY APPLYING EXCESSIVE FORCE ON MANUAL OPERATED

DO NOT OPERATE above maximum design pressure 1000 KPA

PNEUMATIC OPERATED maximum design pressure 800 KPA

NO NEED TO ADJUST THE CLEVIS ON VALVE THE STROKE, it HAS BEEN PRE-SET AT MANUFACTURER  
IF LEAK IS DETECTED LATER ON, YOU CAN ADJUST THE CLEVIS BY REMOVING THE CLEVIS BOLTS  
LOSEING THE lock NUT AND TURN IT once 180 DEGREE OUT then reinstall the clevis bolts, retightening the lock nut



# ACV RF WAFER KNIFE GATE VALVE USER GUIDE

## MAINTENANCE INSTRUCTION

### AC VALVES KNIFE GATE VALVES

The manually operated knife gate valves are virtually maintenance free except where damage may occur due to fair wear and tear.

Lubrication on manual HANDWHEEL gearbox one a week. With a good quality waterproof gear grease  
No lubrication of the valve body is required.

All valve components are designed for extended operation in a water medium. If used on slurry life span depends on application. The only maintenance will be the set of packing seals (adjust gland follower if leaks are detected on gland packing) and the blade seal replacement should erosion eventually occur to the latter. Erosion to the seal will be apparent when a leak is detected with the valve fully closed. A spare blade seal should be purchased only when a leak is detected.

Use clean compressor air (lubricated preferably) for pneumatic operated valves  
MAXIMUM 800 PKA

## RECOMMENDED SPARES

It is advisable to keep the following spares in stock for replacement and that the valve can remain operational whilst spares are ordered.

Description: Quantity  
Valve Seal kit - QTY 1  
Actuator seal kit - QTY 1

