



Ramén Ball Sector Valve - Type KS-1B

DN 25-300 | Wafer | PN 40 | Stainless steel | Metal seat | Viton®



Ramén Ball Sector Valve material execution 1B is a metal seated stainless steel Control Valve for abrasive liquids, steam, chemicals and gases.

The Ramén Ball Sector Control Valve in material execution 1B is a stainless steel control valve with a stellited metal seat and hard chromed ball sector that offers improved life time in any application.

KS-1B is used for abrasive liquids or gases at moderate pressure or pressure drop (flow velocity) and temperatures which are within the limits of the metal seat and O-ring seals. KS-1B is used for many abrasive liquids containing hard particles within cellulose & paper industries, waste water in steel mills, sewage plants and many others. Select KS-1B at elevated velocity and/or temperature and if cavitation will occur.

Example of applications

- Slurries
- Liquor (Green, white & black)
- Low pressure steam
- Chemicals
- Water & waste water
- Process water

Technical information

Design	Flangeless, wafer type (size DN 300 flanged)		
Nominal sizes	DN 25 ⁽¹⁾ - DN 300	1" - 12"	
Material	Body	EN 1.4409	AISI 316L
	Shafts	EN 1.4460	AISI 329
	Ball Sector	EN 1.4409+Cr ⁽²⁾	AISI 316L+Cr ⁽²⁾
	Seat	Stellited AISI 316	
	Seat holding ring	EN 1.4409	AISI 316L
	O-rings	Viton®	
	Bearing	Rulon®	
Nominal pressure	DN 25 ⁽¹⁾ - DN 50	PN 40 (for flange PN 10/40 and ANSI 150/300/600)	
	DN 80 - DN 100	PN 25 (for flange PN 10/25 and ANSI 150/300)	
	DN 150 - DN 250	PN 16 (for flange PN 10/16 and ANSI 150)	
	DN 300	PN 16 (Flanged PN 16 or ANSI 150)	
Operating temperature	-40° C - 250° C ⁽³⁾		-40° F - 482° F ⁽³⁾
Leakage class according to EN60534-4	IV		
Characteristic	Equal percentage		
Rangeability	300:1		
Options	O-rings	EPDM, Nitril, Kalrez®, Viton GLT, EPDM 90	
	Alloy steels	304, 316L, SMO, Hastelloy, Duplex, Super Duplex, Titanium	
	Seat	White PTFE, PEEK, FDA Approved	
Certificates and approvals	CE-marked acc. to PED 2014/68/EU, Category II, Module D1 ATEX according to directive 2014/34/EU		

(1) For DN25 refer to its separate data sheet

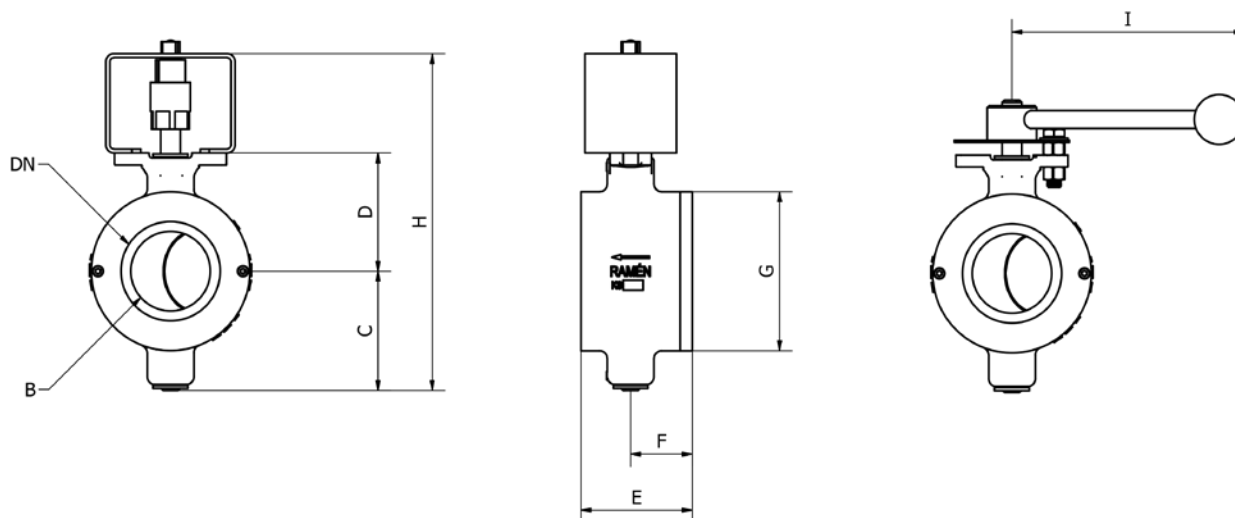
(2) Hard chromed ball sector

(3) With Kalrez® o-rings and MP shaft bearing



Ramén Ball Sector Valve - Type KS-1B

DN 25-300 | Wafer | PN 40 | Stainless steel | Metal seat | Viton®



Dimensions

DN ⁽¹⁾	40	50	80	100	150	200	250	300
B Bore [mm]	25 / 32	40	64	80	120	150	195	250
C [mm]	95	95	107	118	167	188	233	310
D [mm]	95	95	108	119	162	190	228	300
E [mm]	71	71	95	112	170	210	270	368
F [mm]	38	38	55	62	95	120	150	198
G [mm]	94	94	140	160	220	274	330	460
H [mm]	250	250	315	337	454	503	561	710
I [mm]	160	160	290	290	370	370	N.A. ⁽²⁾	N.A. ⁽²⁾
Weight [kg]	4	4	8	12	25	38	67	170
Top mounting flange⁽³⁾ EN-ISO 5211⁽³⁾	D14/17 F05/F07	D14/17 F05/F07	D17/22 F07/F10	D17/22 F07/F10	D22/27 F10/F12	D22/27 F10/F12	D27 F10/F12	D36 F14

(1) For DN25 refer to its separate data sheet

(2) Gear boxes available on request

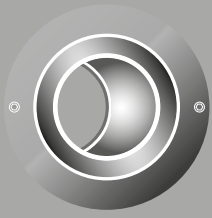
(3) D refers to diagonal square size & F refers to hole pattern.

Technical specifications

DN ⁽¹⁾	40	50	80	100	150	200	250	300	
K_{vs} [m³/h]	34 / 64	94	255	390	810	1365	2220	3840	
C_v [gpm]	40 / 75	110	300	460	950	1600	2600	4500	
Actuator torque [Nm]	Recommended ⁽²⁾ Max.	30-90 100	30-90 100	80-200 200	80-200 200	160-400 400	160-400 400	250-600 700	700-1200 2000
Rotation angle	30°-90° 20°-90°	0°-90°	0°-90°	0°-90°	0°-90°	0°-90°	0°-90°	0°-90°	

(1) For DN25 refer to its separate data sheet

(2) The lower value of the torque range can be used for on-off applications for clean media at normal temperatures. The higher value of the torque range shall be used for pneumatic actuators with positioner when high control accuracy is needed or for dirty/sticky media.



Ramén Ball Sector Valve - Type KS-1B

DN 25-300 | Wafer | PN 40 | Stainless steel | Metal Seat | Viton®

Our solutions

Industrial automation requires accurate and repetitive control with highest turn down ratio. Ramén supplies different types of automation to meet these criteria's from well-known global brands. All automation solutions supplied by Ramén are thoroughly tested with our valve technology to meet the most demanding requirements.

Automation options

- Pneumatic actuator SR (Spring Return) or DA (Double Acting)
- Digital/Electro pneumatic/Pneumatic positioner
- Electrical actuator
- Hydraulic actuator



Electrical actuators with stepper motor for high end solutions to solve the most demanding applications where accuracy, repeatability and rangeability is essential.



Pneumatic actuators, double acting or fail safe spring return with digital or pneumatic positioner for robust easy operations. Positioners offer options for feedback signal, HART, ATEX, industrial bus systems like Profibus, FF etc.



Electrical actuators with integrated positioner for simple installation in any power system. Can be supplied with different options feedback signal, HART, ATEX, industrial bus systems like Profibus, FF etc.

About Ramén Valves

Ramén manufactures the Ramén Ball Sector Valve in Sweden for throttling of liquids, gases, steam and slurries. The Ramén Ball Sector Valve has been installed in thousands of applications worldwide since 1968. The industrial design and the high performance throttling characteristics have been used within the pulp and paper, chemical and mining industry among others. The construction details and manufacturing techniques of Ramén are based on extensive and varied usage, often in harsh applications and environments.