



**PMP PRECISION VALVE CO. LTD.**

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# **Mono-A** **KNIFE GATE** **Valve**

# Mono-A Knife Gate Valve AWWA C520 3" - 24"

PMP-Weco Mono series are designed in compliance with the latest AWWA C520 standard for knife gate valves. The Weco Armaturen design offers a unique O-ring stem seal design eliminating emissions and foul odours to the atmosphere.

Meeting the German standard TA-Luft VDI 2440 for stem sealing to atmosphere, the PMP-Weco series of knife gate valves offers low operating torques, and low maintenance even after thousands of operating cycles.

PMP-Weco Knife Gate Valves are manufactured to MSS SP 81, TIS-405-8 & AWWA C520 standards. Flange dimensions conform to ANSI B16.5 class 150, 3" to 24", face to face dimensions conform to MSS SP 81 standard.

Resilient O-rings and seat materials are NSF 61 certified. Standard ductile iron, one piece body, with Resicoat R4-ES Fusion Bonded Epoxy coating, offers corrosion protection of earth laid valves, meets the requirements of AWWA C-213, AWWA C-550 and NSF 61 standards. The coating is resistant against waste water and various chemicals.

Rising and non-rising stem designs are available.

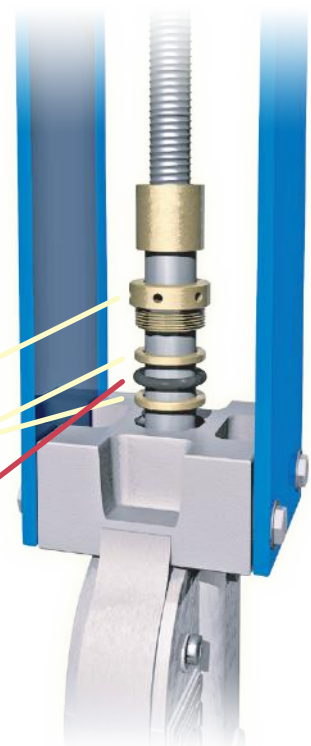
Due to low operating torques, manual hand wheel operators are supplied as standard on valves to 24" sizes. Optional manual gear, AWWA square nut, pneumatic, hydraulic and electric operators with accessories are available.



# Mono-A Knife Gate Valve Features and Benefits AWWA C520

- One piece cast and ductile iron body eliminates potential leak paths.
- Bonnet style one piece body eliminates leakage through the stem area at full design pressures and limits exposing the gate to atmosphere, odours are contained.
- Unique “O” ring stem seal assembly eliminates the need for a stuffing box, reduces operating torque and maintenance requirements with higher cycle life.
- In addition, it is compliant with TA-Luft emission leakage standards.
- Precision water jet cut beveled 360° gate edge, easily cuts through debris or build up.
- Variety of seat materials offers flexibility for specific applications: Metal, EPDM, Viton, Buna-N.
- Retained seat will not pull out under full design pressure.
- Corrosion resistant stainless steel stem with large pitch thread offers quick opening and closing of the valve.
- Rising and non-rising stems are available.
- Purge ports offer flexibility to purge body chest cavity, or to monitor pressure.
- V-Port inserts are available for control applications with either electric or pneumatic actuation.
- Optional accessories: AWWA manual bevel gear operators, shaft extensions, floor stands, wall brackets, deflector cones for slurry and abrasive applications, actuation for on-off or modulating services, solenoid valves, limit switches, speed controls, actuators and chain wheel operators.

Unique stem seal assembly uses a thrust nut retainer  
with two Stainless Steel scraper ring thrust washers  
compressing a standard “O” ring certified to NSF 61 standards  
eliminating historical leaking of the packing gland

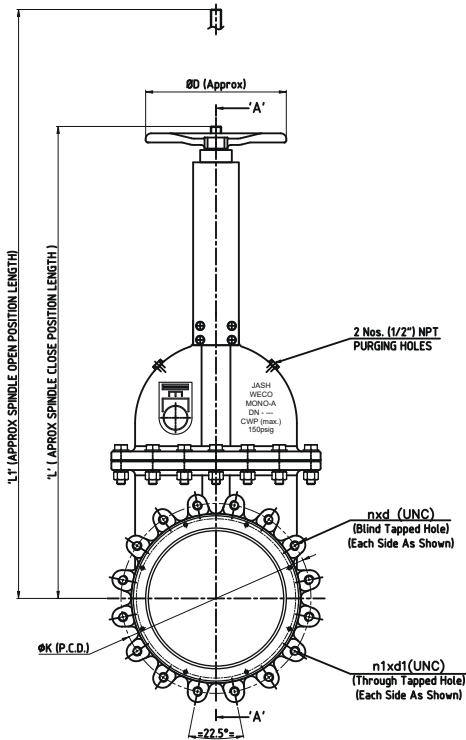




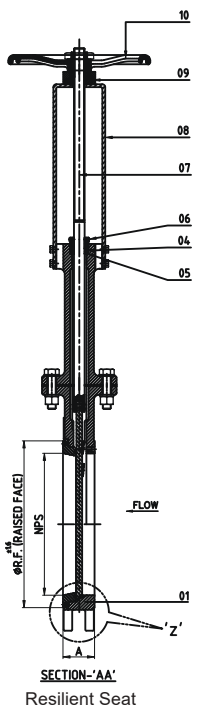
# Mono-A Knife Gate Valve Manual Operated 3" - 24"

## Rising Stem

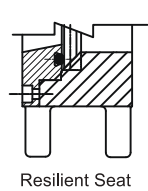
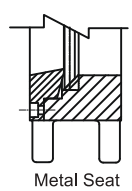
Flange Standard ANSI B16.5 Class 150  
 Valve Design: B16.34, AWWA C520-10, MSS-SP81  
 CRN CSA-OC 15663.567890



NPS	A	n x d x Deep (Min.)	n1 x d1	K	B	C	D	R	R.F
3	2.00	2Nos. x 5/8" x 0.5"	2Nos. x 5/8"	6.00	19.00	23.00	8.00	3.75	5.00
4	2.00	2Nos. x 5/8" x 0.5"	6Nos. x 5/8"	7.50	21.00	26.00	8.00	4.50	6.20
6	2.25	2Nos. x 3/4" x 0.6"	6Nos. x 3/4"	9.50	26.00	32.50	8.00	5.50	8.45
8	2.75	2Nos. x 3/4" x 0.6"	6Nos. x 3/4"	11.75	30.50	39.00	8.00	6.75	10.60
10	2.75	4Nos. x 7/8" x 0.6"	8Nos. x 7/8"	14.25	36.50	47.00	12.40	8.00	12.76
12	3.00	4Nos. x 7/8" x 0.6"	8Nos. x 7/8"	17.00	42.00	54.50	12.40	9.50	15.00
14	3.00	4Nos. x 1.0" x 0.78"	8Nos. x 1.0"	18.75	48.00	62.50	12.40	10.50	16.25
16	3.50	6Nos. x 1.0" x 0.78"	10Nos. x 1.0"	21.25	52.95	69.29	12.40	12.00	18.50
18	3.50	6Nos. x 1-1/8" x 0.86"	10Nos. x 1-1/8"	22.75	59.00	79.00	12.40	12.50	21.00
20	4.50	8Nos. x 1-1/8" x 0.86"	12Nos. x 1-1/8"	25.00	63.50	83.50	15.75	13.80	23.00
24	4.50	8Nos. x 1-1/4" x 1.0"	12Nos. x 1-1/4"	29.50	77.00	100.98	15.75	16.00	27.25

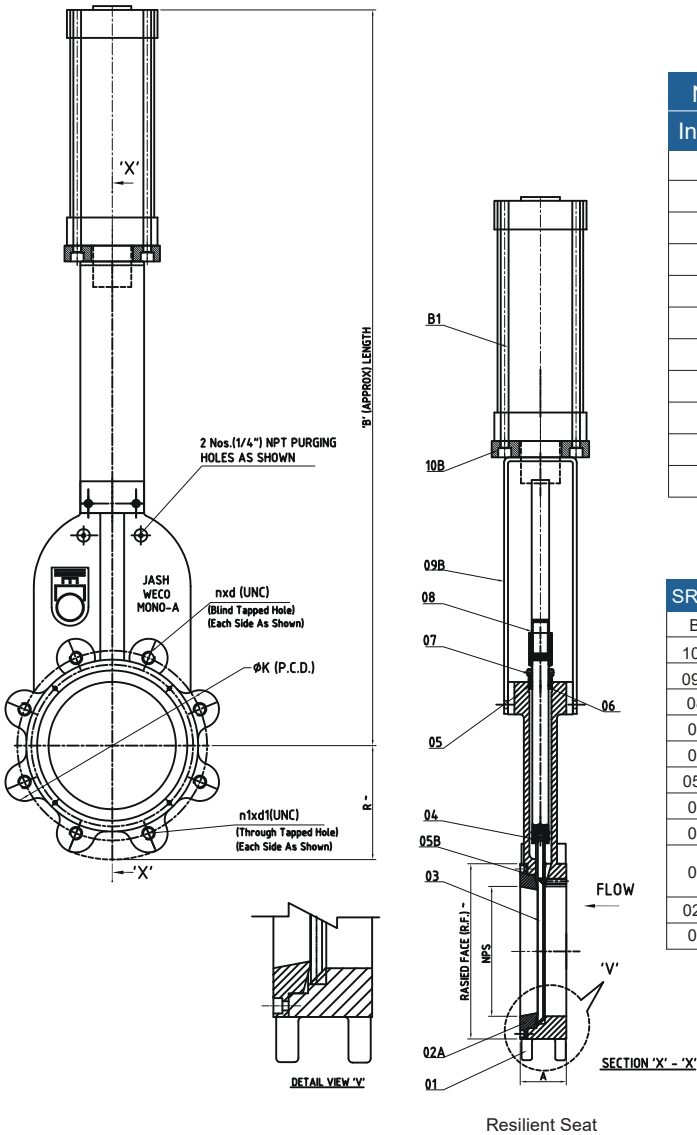


SR.No.	Description	Material
01	Body	Ductile Iron ASTM A 536 65-45-12
02	Seal Retainer Ring	Ductile Iron ASTM A 536 65-45-12
03	Knife Gate	ASTM A 240 Gr.: 304
04	'O' Ring for Stuffing Box	VITON
04A	'O' Ring for (S.R. Ring & Gate)	VITON
04B	'O' Ring for (S.R. Ring & Housing)	VITON
05	Spacer (Lower & Upper)	Stainless Steel Gr. 304
06	Sealing Nut	ASTM A 276 Gr.: 304
07	Stem (Rising)	ASTM A 276 Gr.: 304
08	Supporting Bracket	Carbon Steel Painted
09	Adapter Plate	Carbon Steel Painted
10	Hand Wheel	Ductile Iron / Carbon Steel



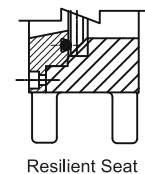
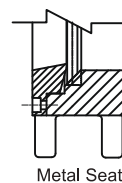
# Mono-A Knife Gate Valve Pneumatic Operated 3" - 24"

Flange Standard ANSI B16.5 Class 150  
 Valve Design: B16.34, AWWA C520-10, MSS-SP81  
 CRN CSA-OC 15663.567890



NPS	A		Bolt Hole		Tap Size		B.C.		Actuator	
Inches	A	Bolt Hole	No.	UNC	K	B	O*			
3	2.00	0.75	4	5/8"x11	6.00	24.60	2.50			
4	2.00	0.75	8	5/8"x11	7.50	28.00	3.00			
6	2.25	0.88	8	3/4"x10	9.50	35.65	4.00			
8	2.75	0.88	8	3/4"x10	11.75	47.10	5.00			
10	2.75	1.00	12	7/8"x9	14.25	54.50	5.00			
12	3.00	1.00	12	7/8"x9	17.00	63.80	6.00			
14	3.00	1.12	12	1"x8	18.75	72.50	8.00			
16	3.50	1.12	16	1"x8	21.25	80.50	8.00			
18	3.50	1.25	16	1-1/8"x7	22.75					
20	4.50	1.25	20	1-1/8"x7	25.00					
24	4.50	1.38	20	1-1/4"x7	29.50					

SR.No.	Description	Material
B1	Pneumatic cylinder	"Schrader" / "EQUI" make
10B	Adapter plate	Carbon Steel Painted
09B	Supporting bracket	Carbon Steel Painted
08	Connecting rod	ASTM A 276 Gr. : 304
07	Sealing nut	ASTM A 276 Gr. : 304 / Brass
06	Spacer (lower & upper)	Stainless Steel Gr.: 304 / Brass
05B	'O' Ring for (S.R. Ring & Housing)	EPDM / Viton (NSF Certified)
05	'O' Ring for stuffing box	EPDM / Viton (NSF Certified)
04	Slotted head grub screw	Stainless Steel Gr.: 304
03	Knife gate	ASTM A 240 Gr.: 304 (Size 3" to 6") LDX 2101 (Size 8" to 12")
02A	Seal retainer ring	Ductile Iron ASTM A 536 60-40-18 / SS304
01	Housing / Body	Ductile Iron ASTM A 536 60-40-18



# Mono Knife Gate Valve

## Design and Maximum Working Pressures

SIZE		DESIGN TEST PRESSURES		
		BODY	SEAT	
			HIGH	LOW
INCHES	MM	PSI	PSI	PSI
3"	80	225	150	5
4"	100	225	150	5
6"	150	225	150	5
8"	200	225	150	5
10"	250	225	150	5
12"	300	225	150	5
14"	350	225	150	5
16"	400	225	150	5
18"	450	225	150	5
20"	500	225	150	5
24"	600	225	150	5

*Design: AWWA C520-14, MSS SP 81*

SIZE		MAXIMUM WORKING PRESSURES
		FLOW DIRECTION
		PREFERRED
INCHES	MM	PSI
3"	80	150
4"	100	150
6"	150	150
8"	200	150
10"	250	150
12"	300	150
14"	350	150
16"	400	150
18"	450	150
20"	500	150
24"	600	150

*Design: AWWA C520-14, MSS SP 81*



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