

# NON RETURN VALVE

## INTRODUCTION:

The FLOCON INDUSTRIES Non-return Valve is a hygienic one-way check valve for use in various processes across the hygienic industries to prevent reverse flow. It is easy to install, ensuring safety and high product quality.



## WORKING PRINCIPLE:

The Flocon Industries Non-return Valve opens and closes depending on the pressure. The spring acts on the valve plug and keeps the valve closed until the force from the pressure in the inlet exceeds the force of the spring. If a reverse flow should occur, the spring force and the pressure from the outlet will keep the valve closed. Required differential pressure for opening the valve when fitted in a vertical pipe is approximately 0.2 to 0.5kg/cm<sup>2</sup>.

## STANDARD DESIGN:

The Flocon Industries Non-return Valve consists of a valve body in two parts, valve plug and spring, assembled by means of a clamp ring or SMS Nut and hygienically sealed with a special seal ring. A guide disc with four legs ensure alignment of the spring-loaded valve plug with an O-ring seal. The valve is available with Triclover ends, SMS Union ends and Butt weld ends.

## DESIGN CODE:

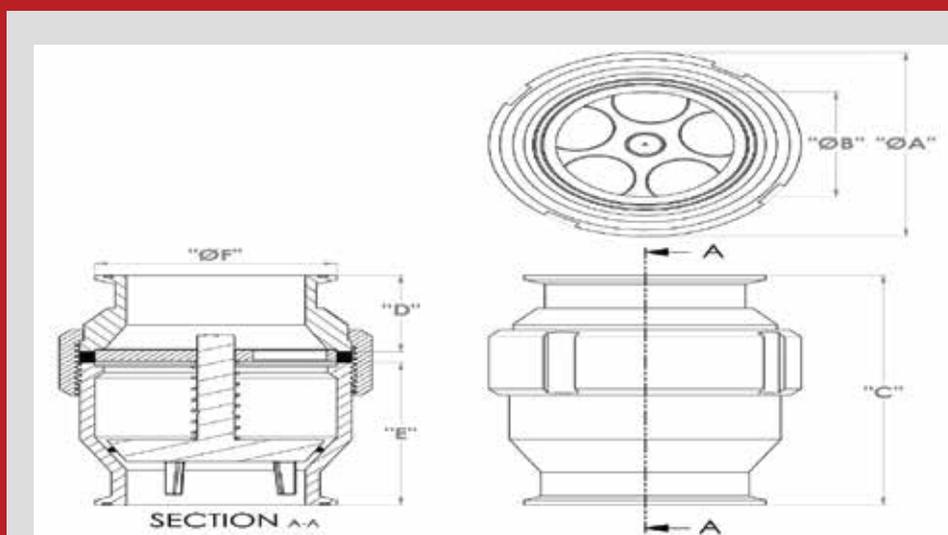
Confirming to ASME  
B16 / ASME BPE &  
Equiv Standards.

## BENEFITS:

- Reliable full-flow performance.
- Compact hygienic design
- Highly reliable, self-acting valve
- Protects process equipment
- Easy to install
- Prevents reverse flow

## APPLICATION:

The Flocon Industries hygienic Non Return valve is designed for on-off duties with low to medium-viscosity liquids in hygienic applications across the dairy, food, beverage, brewery and many other industries.



## TECHNICAL SPECIFICATION:

Size	1/2" to 4" OD
Max. Operating Pressure	14 Bar
Max. Operating Temperature	120°C
Material of Construction	SS304, SS316L
Seat	EPDM Food Grade
Surface Finish Internally	Ra <0.4 µm
External Finish Internally	Ra <0.8 µm

## NON RETURN VALVE SIZE CHART

### NON RETURN VALVE TC END

Size	A	B	C	D	E	F
±2mm	BODY OD	INNER DIAMETER	OVERALL HEIGHT	LENGTH OF BODY 1	LENGTH OF BODY 2	TC OD
1/2"	50	9.5	70	23	46	25
3/4"	74	16	88	33	52	25/50.5
1"	74	22.1	86	33	52	50.5
1.5"	84	34.6	100	33	65	50.5
2"	87	48	105	35	66	64
2.5"	100	60	110	40	70	77.5
3"	130	72	150	50	100	91
4"	150	98	175	55	120	119

### NON RETURN VALVE BUTT WELD END

Size	A	B	C	D	E	F
±2mm	BODY OD	INNER DIAMETER	OVERALL HEIGHT	LENGTH OF BODY 1	LENGTH OF BODY 2	PIPE OD
1/2"	50	9.5	70	23	46	12.7
3/4"	74	16	88	33	52	19
1"	74	22.1	86	33	52	25.4
1.5"	84	34.6	100	33	65	38.1
2"	87	48	105	35	66	50.8
2.5"	100	60	110	40	70	63.5
3"	130	72	150	50	100	76.2
4"	150	98	175	55	120	101.6

### NON RETURN VALVE SMS END

Size	A	B	C	D	E	F
±2mm	BODY OD	INNER DIAMETER	OVERALL HEIGHT	LENGTH OF BODY 1	LENGTH OF BODY 2	SMS MALE PART
1/2"	NA	NA	NA	NA	NA	NA
3/4"	NA	NA	NA	NA	NA	NA
1"	74	22.1	86	33	52	40
1.5"	84	34.6	100	33	65	60
2"	87	48	105	35	66	70
2.5"	100	60	110	40	70	85
3"	130	72	150	50	100	98
4"	150	98	175	55	120	132

## PART LIST

Item No.	Part Name	MOC	Qty
1	Retainer	SS316L/SS304	1 no.
2	Body	SS316L/SS304	1 no.
3	Nut (TC Clamp for 2.5" to 4")	SS304	1 no.
4	Seal Ring	EPDM	1 no.
5	Guide Plate	SS316L/SS304	1 no.
6	Clack	SS316L/SS304	1 no.
7	Spring	SS316L/SS304	1 no.
8	O-ring	EPDM	1 no.

