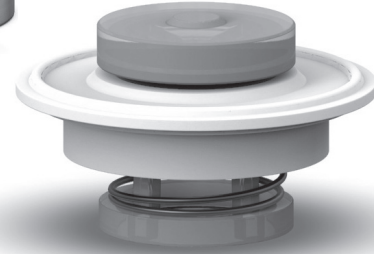


Valve shown in ferrules.
Ferrules and clamp not included.



The **Sanitary Insert (CB, TC)** valve is a compact fluoropolymer (PTFE/FEP/PFA) valve which has been used for decades as the most economical solution for providing a check valve in a new or existing sanitary piping system. This valve style is designed to fit into grooved-end clamp-type fittings (ferrules not included). Since the Sanitary Insert Valve replaces the gasket normally used with clamp joints, no extra space is required to accommodate the valve. The Sanitary Insert valve can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.

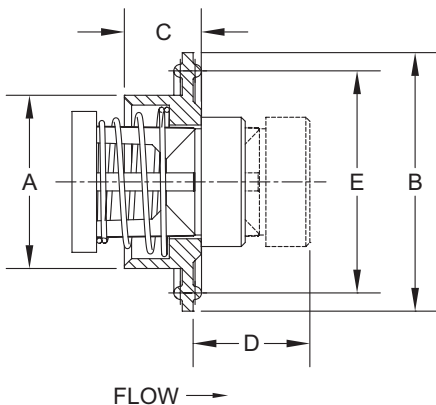
For applications requiring a 3-A compliant valve and/or 32 RA or finer surface finishes, see our 3S series on page 23.

Two different types of Sanitary Insert Valves are available. They are distinguished by the following designations in their part numbers:

TC – Designates Tri-Clamp® fittings manufactured by Alfa Laval Inc., as well as Cherry-Burrell S-Line Series of fittings.

CB – Designates the Cherry-Burrell Q-Line Series of fittings.

Note: Sanitary Insert Valve types TC and CB are not interchangeable!
USP Class VI o-rings can be supplied with certification.



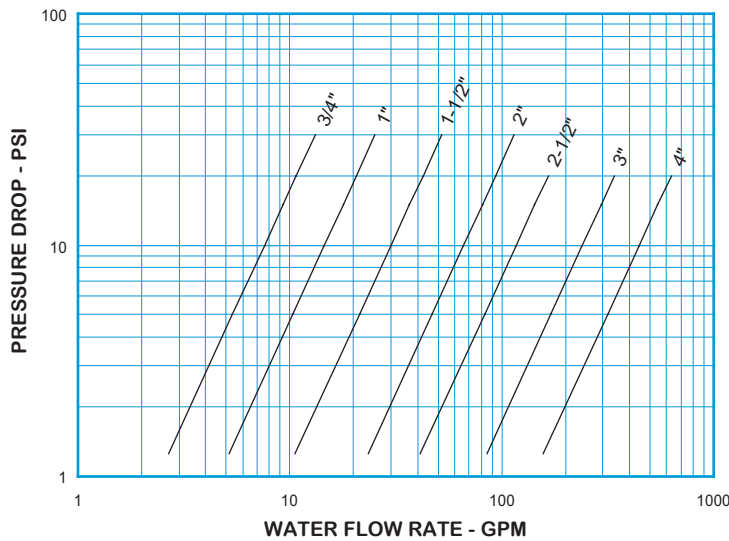
Line Size	Size Code	TC - Alfa Laval Inc. Cherry-Burrell S-Line					CB - Cherry-Burrell Q-Line Only					Orifice ¹ Dia.
		A	B	C	D ²	E	A	B	C	D ²	E	
3/4	F	0.590	55/64	0.55	0.63	0.800	-	-	-	-	-	0.348
1	H	0.855	2	0.55	0.70	1.718	0.850	1-3/4	0.55	0.70	1.437	0.464
1-1/2	J	1.345	2	0.60	0.98	1.718	1.350	2	0.60	0.98	1.716	0.890
2	K	1.845	2-1/2	0.57	1.12	2.218	1.850	2-1/2	0.57	1.12	2.247	1.135
2-1/2	L	2.355	3	0.60	0.98	2.781	2.250	3-1/4	0.60	0.98	2.841	1.385
3	M	2.845	3-1/2	0.64	1.59	3.281	2.852	3-55/64	0.61	1.58	3.372	2.025
4	N	3.806	4-5/8	0.78	1.90	4.344	3.800	4-55/64	0.73	1.89	4.372	2.560

¹ Due to molding process, orifice may vary.

² Maximum nominal dimension for a fully open valve with no spring.

Body Material ³	Line Size	Non-Shock Pressure-Temp. Rating @ 100°F Consult factory for P-T ratings above 100°F
PTFE (TF)	3/4" - 2"	55 PSIG
	2-1/2" - 4"	20 PSIG

Sanitary Insert Valve
For Water at 72°F



Note: All flow curves and Cv values presume the valves are fully open with 1/2 PSI cracking pressure springs. Consult the factory for more information.

STYLE CB, TC C _v VALUES & VALVE WEIGHTS		
C _v	SIZE	PTFE
2.4	3/4	0.2 oz.
4.6	1	0.6 oz.
9.5	1-1/2	1.1 oz.
20.9	2	1.8 oz.
37.0	2-1/2	2.3 oz.
76.0	3	5.1 oz.
141	4	11.2 oz.

See page 51 for Flow Formulae.
Valve weights are approximate.

HOW TO ORDER
CHECK-ALL STYLE CB, TC

BODY MATERIAL
PTFE = TF
See p. 3 for temperature rating

SPRING CRACKING PRESSURES (PSI)
Must use decimal as a character unless selecting NO SPRING. Specify Exact Setting

SPRING RANGES	EXAMPLE
.000 TO .999	= .500
1.00 TO 9.99	= 1.50
10.0 TO 85.0	= 15.0
NO SPRING	= NOSPRG

STANDARD CRACKING PRESSURES ①
.125 .500 1.50 3.50
(Sizes F-K Only)

SPECIAL OPTIONS
T = FEP ENCAPSULATED SPRING
Contact the factory for more options
See p. 4 for temperature rating

VALVE STYLE
CB
TC

TF

SIZE

3/4 = F
1 = H
1-1/2 = J
2 = K
2-1/2 = L
3 = M
4 = N

SEAT & OUTER SEALS MATERIAL ②

FDA AFLAS® = FA	"METAL-TO-METAL" = MT
FDA BUNA = FB	USP CLASS VI AFLAS® = UA
FDA EPDM = FE	USP CLASS VI EPDM = UE
FDA VITON™ = FV	USP CLASS VI SILICONE = US
FDA KALREZ® = FK	USP CLASS VI VITON™ = UV

See p. 3 for temperature ratings

SPRING MATERIAL

316 SS = SS
ALLOY C-276 = HC
INCONEL® X750 OR ALLOY X750 = IX
MONEL® 400 = MO
TITANIUM = TI

See p. 4 for temperature ratings

Listed above are the most common material selections. Please contact the factory for additional options.

① .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. .125 PSI springs are not recommended for installations with flow vertical down.

② For PTFE valves, "MT" seats mean plastic to plastic. (No o-ring). See page 52 for allowable leakage rates.