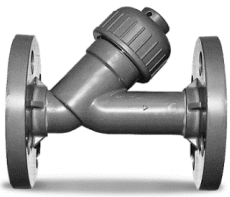
Angle Seat Check Valve Type 303/304

Type 303
Solvent cement spigot, metric

Type 303
Solvent cement socket, JIS



Type 303
Fixed flange, JIS

Product description

Angle seat check valves of types 303 and 304 are distinguished by their reliability and ability to function regardless of position. The design has evolved its strengths over many years. Because of its ability to function regardless of position and the simple maintenance process, the valve guarantees a high degree of process reliability. The maximum operating time is 25 years.

Function

These GF Piping Systems angle seat check valves of types 303 and 304 are intended exclusively for shutting off and conducting media within the allowable pressure and temperature range following installation in piping systems.

Applications

- Water treatment
- Chemical process industry
- Cooling processes

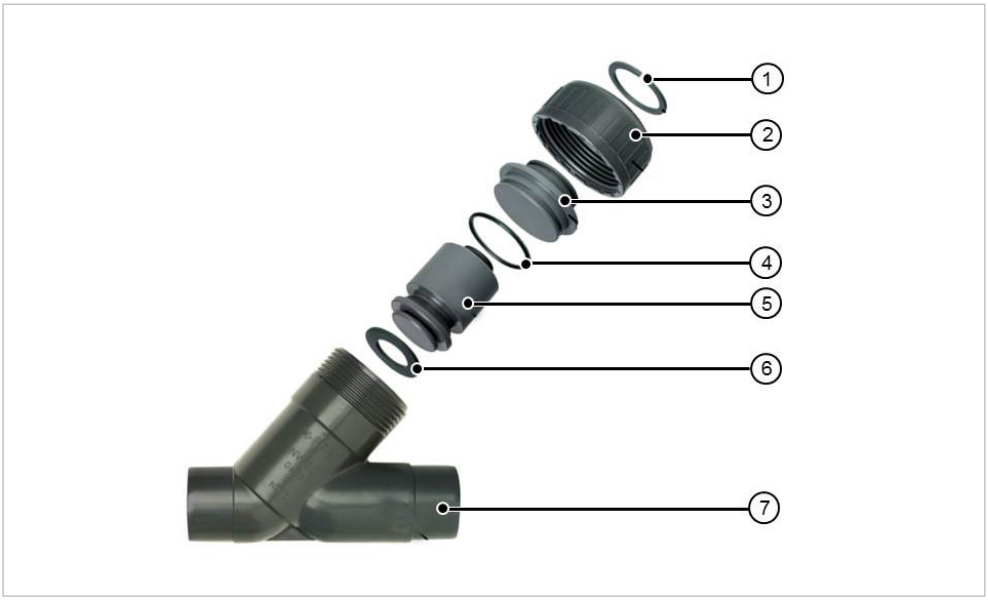
Benefits/features

- Self-closing piston check valve
- For horizontal and vertical use
- Simple maintenance of the check element without dismantling the valve
- Overall length according to EN 588

Flow media

Media that are free of foreign particles, as well as viscous and thick media.

Technical data



1. Circlip
2. Cap nut
3. Plug
4. O-ring
5. Piston
6. Compartment seal
7. Housing

Specification	
Dimensions	d15/DN10 bis d90/DN80, ⅜" - 3"
Valve body materials	PVC-U, ABS, transparent PVC-U
Gasket materials	EPDM, FKM
Pressure level	PN 10
Connections	Solvent cement socket, ISO
	Solvent cement spigot, JIS
	Fixed flange, JIS
Actuation variants	Self-closing

Kv 100 values

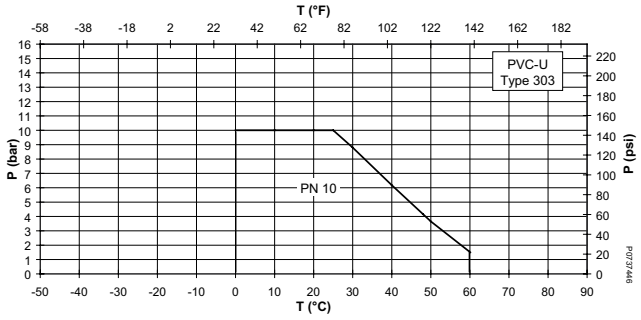
d (mm)	DN (inch)	inch (inch)	kv 100 (l/min (Δp = 1 bar))	Cv 100 (US gal./min)	kv 100 (m^3/h(Δp = 1 bar))
16	10	⅜	45	3.2	2.7
20	15	½	95	6.7	5.7
25	20	¾	170	11.9	10.2
32	25	1	300	21.0	18.0
40	32	1 ¼	440	30.8	26.4
50	40	1 ½	700	49.0	42.0
63	50	2	1100	77.0	66.0
75	65	2 ½	1700	119.0	102.0
90	80	3	2400	168.0	144.0

Pressure-temperature diagrams

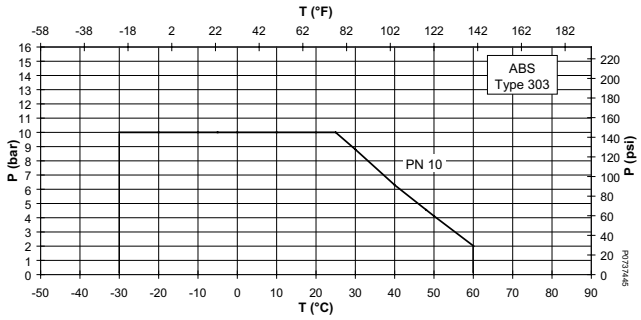
The following pressure-temperature diagrams are based on a lifetime of 25 years and water or similar media.

T Temperature (°C, °F)
P Permissible pressure (bar, psi)

PVC-U

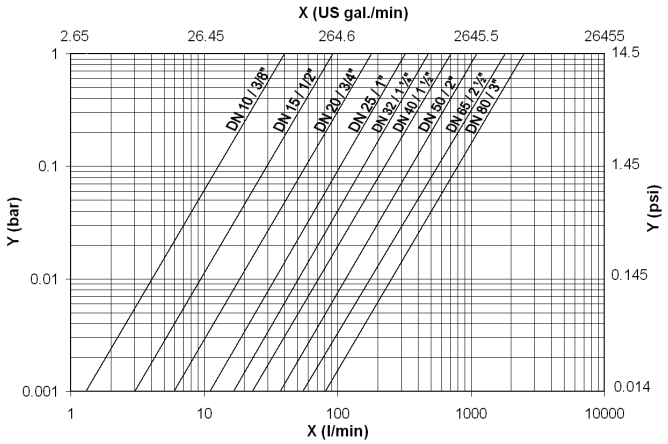


ABS



Pressure losses

Medium: water 20 °C



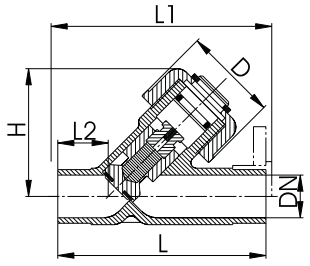
X Flow rate (l/min, US gal/min)
Y Pressure loss Δp (bar, psi)

DN	Open			Close
	Differential preferential for full stroke	Minimum flow for full stroke	Minimum flow rate for full stroke	Leak-tight starting at
(mm)	(bar)	(l/min)	(m/sec)	(bar)
10	0.02	5	1.1	0.2
15	0.02	10	1.1	0.2
20	0.02	18	1.1	0.2
25	0.02	28	1.1	0.2
32	0.02	50	1.2	0.2
40	0.03	95	1.4	0.2
50	0.03	200	1.5	0.2
65	0.03	280	1.8	0.2
80	0.03	420	1.8	0.2

Dimensions

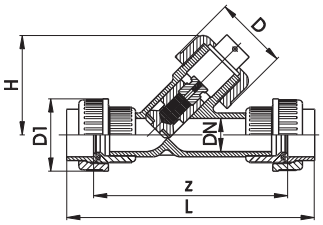
Angle seat check Valve Type 303 with solvent cement spigot, metric

d (mm)	DN (mm)	Inch (inch)	D (mm)	L (mm)	L1 (mm)	l2 (mm)	H (mm)
16	10	⅜	39	114	120	24	58
20	15	½	43	124	130	28	65
25	20	¾	47	144	150	37	75
32	25	1	56	154	160	37	90
40	32	1 ¼	64	174	180	44	102
50	40	1 ½	82	194	200	48	123
63	50	2	95	224	230	60	144
75	65	2 ½	92	284	290	74	186
90	80	3	104	300	310	85	204



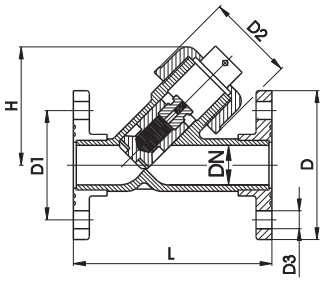
Angle seat check Valve Type 303 with solvent cement socket, JIS

Inch (inch)	DN (mm)	z (inch)	D (mm)	D1 (mm)	L (mm)	H (mm)
½	15	162	43	53	194	65
¾	20	170	47	53	208	75
1	25	180	56	53	224	90
1 ¼	32	204	64	74	256	102
1 ½	40	228	82	83	290	123
2	50	266	95	103	342	144



Angle seat check Valve Type 303 with fixed flange, JIS

Inch (inch)	DN (mm)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	H (mm)
½	15	95	70	48	15	130	65
¾	20	100	75	54	15	150	75
1	25	125	90	62	19	160	90
1 ¼	32	135	100	71	19	180	102
1 ½	40	140	105	88	19	200	123
2	50	155	120	103	19	230	144
2 ½	65	185	140	106	19	290	186
3	80	200	150	120	19	310	204



For further information on accessories, refer to the online product catalogue at www.gfps.com.

09/2020-A

Tel. +41 52 631 11 11 • www.gfps.com • E-Mail: info.ps@georgfischer.com