

## Check Valves and Strainers

### Swing Check Valves

Swing Check valves are used where the flow moves through the valve in approximately a straight line similar to that in a gate valve, is commonly used in pipe line conveying liquids by gravity or pumping. The check mechanism of the design incorporates a disc which swings on a hinge.

### Ball Check Valves

This valve is used where full uninterrupted flow is required. The design of the valve incorporates a compartment for when the fluid is pumped through the valves the EPDM encapsulated steel ball is pushed into this compartment and held there whilst the up steam pressure is applied. When the pump is turned off the ball falls from its compartment and with backpressure assists drops back into the flow path and blocks any return of fluid back to the pump.

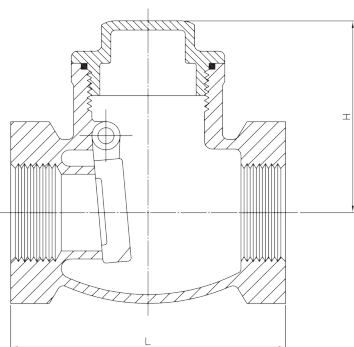
### Lift Check Valves

A lift-check valve in which the disc, sometimes called a lift, can be lifted up off its seat by higher pressure of inlet or upstream fluid to allow flow to the outlet or downstream side. A guide keeps motion of the disc on a vertical line, so the valve can later reseal properly. When the pressure is no longer higher, gravity or higher downstream pressure will cause the disc to lower onto its seat, shutting the valve to stop reverse flow. Both wafer and piston checks are examples of a Lift Check Valve.

### 'Y' Type Strainers

Y type strainers are designed for inline protection of control equipment, instruments, pumps and regulators. Their function is simplistic with fluid passing through the perforated stainless steel sheet, or wire mesh basket which is housed in a Y shaped body made of various materials, brass, steel, cast iron, stainless steel etc. The basket traps the fines and the solids which fall into the leg of the housing. They can be flushed out while the plant is in operation with a ball valve fitted to the leg of the housing, or the basket can be removed completely for cleaning whilst the plant is not operational.

## Brass Swing Check Valve



Materials	
PART	MATERIAL
Body	Brass
Bonnet	Brass
Hinge Pin- Nut	Brass

Applications- Oil, Water

Specifications	
Thread	AS 1722.1
Cold Working Pressure	1380kPa
MAX Working Temperature	200°C

Brass Swing Check Valve				
AAP CODE	IMPERIAL SIZE	H	L	APPROX. KG/PC
VBCS15	1/2	34	52	0.18
VBCS20	3/4	37	60	0.26
VBCS25	1	45	74	0.39
VBCS32	1 1/4	50	82	0.59
VBCS40	1 1/2	60	95	0.91
VBCS50	2	70	107	1.22
VBCS65	2 1/2	85	143	2.21
VBCS80	3	100	155	3.59
VBCS94	4	110	178	5.29

## 'Y' type Check Valve

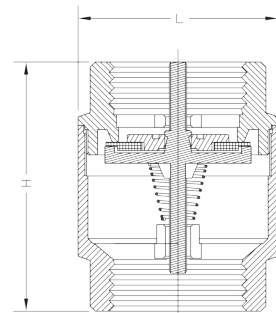
Materials	
PART	MATERIAL
Body	Brass CW 617N
Stem Seat	Nylon 6
Seat	NBR 60 SH/A
Spring	Stainless Steel AISI 302

Working Temperatures		
	MIN	MAX
Air	-20°C	110°C
Water	0°C	90°C
Gas	-20°C	60°C



Applications - Can be fitted in horizontal, vertical or oblique position. Suitable for Hot/Cold water, Compressed Air, Oils

'Y' type Check Valve					
CODE	IMPERIAL SIZE	H	L	APPROX. KG/PC	kPa
VBCY10	3/8	46.5	34.5	0.12	1172
VBCY15	1/2	47	34.5	0.14	1172
VBCY20	3/4	53	42	0.2	1172
VBCY25	1	58	47.5	0.27	1172
VBCY32	1 1/4	66.5	59.5	0.36	965
VBCY40	1 1/2	68	68	0.57	965
VBCY50	2	77	86.5	0.77	965
VBCY65	2 1/2	93	102	1.55	758
VBCY80	3	97	111	2.02	758
VBCY94	4	110	140	2.98	758



## 'E' type Check Valve

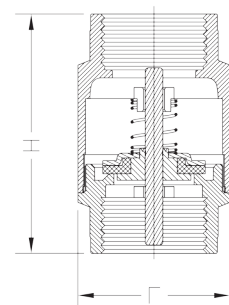
Materials	
PART	MATERIAL
Body	Brass CW 617N
Internal Seat	Stainless Steel plate AISI 304 fitted with NBR 60 SH/A, Cover plate and rod in brass CW 614N
Spring	STAINLESS STEEL AISI 302

Working Temperatures		
	MIN	MAX
Air	-20°C	110°C
Water	0°C	90°C
Gas	-20°C	60°C



Applications - Can be fitted in horizontal, vertical or oblique position. Suitable for Hot/Cold water, Compressed Air, Oils

'E' type Check Valve					
CODE	IMPERIAL SIZE	H	L	APPROX. KG/PC	kPa
VBCE10	3/8	55	34.5	0.17	2482
VBCE15	1/2	58.5	34.5	0.19	2482
VBCE20	3/4	63	42	0.27	2482
VBCE25	1	74	48	0.43	2482
VBCE32	1 1/4	83	60.5	0.54	1793
VBCE40	1 1/2	93	71	0.87	1793
VBCE50	2	101	87	1.32	1793
VBCE65	2 1/2	120	118	2.62	1172
VBCE80	3	139	139	4.21	1172
VBCE94	4	158.5	154	6.13	1172



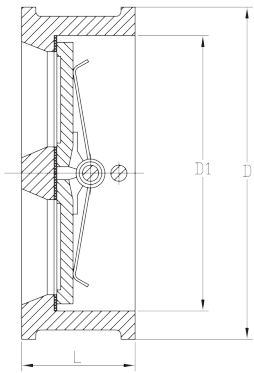
## Wafer Check Valves (Dual Disc)



Materials	
PART	MATERIAL
Body	Cast Iron
Spring	316 Stainless Steel
Disc	316 Stainless Steel
Seat	NBR
Shaft 1	316 Stainless Steel
Shaft 2	316 Stainless Steel
Flange Gasket	NBR

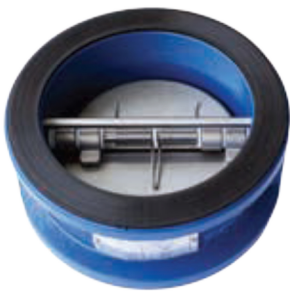
Specifications	
Flange	AS2129 T/E
Cold Working Pressure	1600kPa
MAX Working Temperature	80°C

Applications - Water Oil, Gas



Wafer Check Valve (Dual Disc)					
CODE	IMPERIAL SIZE	D	D1	L	APPROX. KG/PC
VWC50	2	96	65	43	1.5
VWC65	2 1/2	109	80	48	2
VWC80	3	128	94	64	2.8
VWC94	4	160	117	64	4.1
VWC95	5	191	145	70	6.4
VWC96	6	213	170	76	8.5
VWC98	8	270	224	89	13.5
VWCX25	10	333	265	114	22
VWCx30	12	381	312	114	30
VWCX35	14	445	360	127	48
VWCX40	16	496	410	140	65
VWCX45	18	555	450	152	78
VWCX50	20	610	500	154	110
VWCX60	24	720	624	178	157

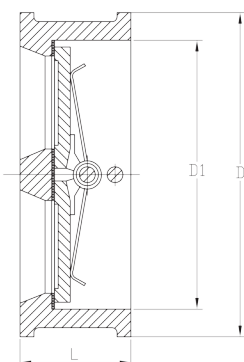
## Wafer Check Valve 'Dual Disc' ANSI 150 (Viton Seat)



Materials	
PART	MATERIAL
Body	WCB
Seat	Viton
Disc	304 Stainless Steel

Specifications	
Flange	ANSI B16.5
Cold Working Pressure	1965kPa
MAX Working Temperature	150°C

Applications - Water, Oil, Gas, High Pressure Liquids



Wafer Check Valve 'Dual Disc' ANSI 150 (Viton Seat)					
CODE	IMPERIAL SIZE	D	D1	L	APPROX. KG/PC
VWCCS15050	2	103	65	42	1.5
VWCCS15080	3	134	95	64	3.5
VWCCS15094	4	164	118	64	4.8

## Brass 'Y' Strainer

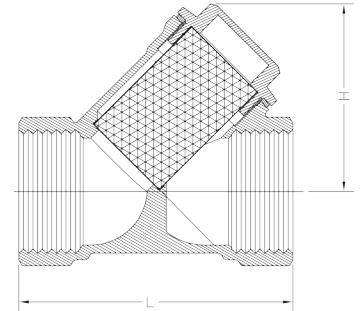
Material List	
PART	MATERIAL
Body	Brass
Mesh	304 Stainless Steel

Specifications	
Thread	AS1722.2
MAX Working Temperature	100°C
Cold Working Pressure	1600kPa



Applications - Filtering Fluid to Protect inline valving

Brass 'Y' Strainer						
CODE	IMPERIAL SIZE	L	H	MESH DIAMETER	MESH CENTRE TO CENTRE	APPROX. KG/PC
VBY10	3/8	47	31	0.8	1	0.07
VBY15	1/2	65	34	0.8	1	0.23
VBY20	3/4	80	42	0.8	1	0.35
VBY25	1	96	48	0.8	1	0.59
VBY32	1 1/4	104	55	0.8	1	0.83
VBY40	1 1/2	116	66	0.8	1	1.19
VBY50	2	140	74	0.8	1	1.95
VBY65	2 1/2	168	85	0.8	1	2.38



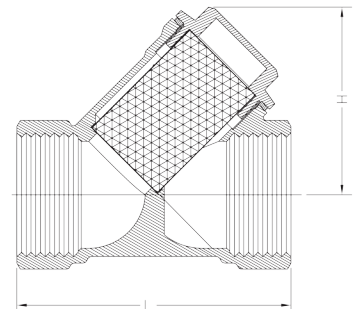
## Stainless Steel 'Y' Strainer

Material List	
PART	MATERIAL
Body	CF8M
Cap	CF8M
Gasket	PTFE
Mesh	316 Stainless Steel

Specifications	
Thread	AS 1722.1
MAX Working Temperature	230°C
Cold Working Pressure	5500kPa



Stainless Steel 'Y' Strainer						
CODE	IMPERIAL SIZE	L	H	MESH CENTRE TO CENTRE	MESH DIAMETER	APPROX. KG/PC
SSY15	1/2	65	51	2	1	0.2
SSY20	3/4	80	60	2	1	0.33
SSY25	1	90	72	2	1	0.7
SSY32	1 1/4	105	77	2	1	0.9
SSY40	1 1/2	120	87	2	1	1.4
SSY50	2	140	103	2	1	2.4
SSY65	2 1/2	170	112	2	1	4.7
SSY80	3	195	129	2	1	7.3



## Cast Iron Flanged 'Y' Strainer Table E

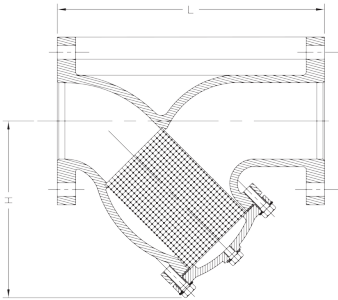


Material List	
PART	MATERIAL
Body	Cast Iron (epoxy coated)
Screen	304 Stainless Steel
Gasket	Graphite
Cover	Cast Iron
Plug	Malleable Iron

Applications - Water, Oil, Air

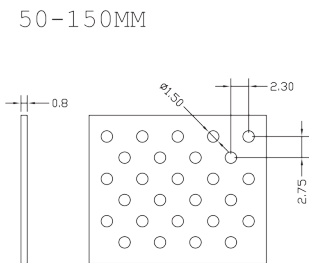
Specifications	
Flange	AS2129 T/E
Max Working Temperature	120°C
Cold Working Pressure	1600kPa

Effective Open Area		
Size	Screen Openings	(% of Inlet Pipe)
50mm - 150mm	1.5mm diam @ 4.5mm spacing	33%
200mm - 300mm	3mm diam @ 7.5mm spacing	44%



Cast Iron Flanged 'Y' Strainer Table E						
CODE	IMPERIAL SIZE	L	H	HOLE DIAMETER	NO. HOLES	APPROX. KG/PC
VDIY50	2	225.4	144	18	4	10
VDIY65	2 1/2	273	176	18	4	14
VDIY80	3	292.1	195	18	4	19
VDIY94	4	352.4	246	18	8	33
VDIY95	5	416	300	18	8	50
VDIY96	6	470	320	22	8	55
VDIY98	8	543	397	22	8	99
VDIYX25	10	660.4	483	22	12	169
VDIYX30	12	762	560	26	12	245
VDIYX35	14	950	689	26	12	450

## Cast Iron Flanged 'Y' Strainer (Table D)

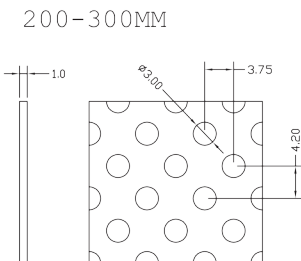


Material List	
PART	MATERIAL
Body	Cast Iron (epoxy coated)
Screen	304 Stainless Steel
Gasket	Graphite
Cover	Cast Iron
Plug	Malleable Iron

Applications - Water, Oil, Air

Specifications	
Flange	AS2129 T/E
Max Working Temperature	120°C
Cold Working Pressure	1600kPa

Effective Open Area		
Size	Screen Openings	(% of Inlet Pipe)
50mm - 150mm	1.5mm diam @ 4.5mm spacing	33%
200mm - 300mm	3mm diam @ 7.5mm spacing	44%



Cast Iron Flanged 'Y' Strainer Table D						
CODE	IMPERIAL SIZE	L	H	HOLE DIAMETER	NO. HOLES	APPROX. KG/PC
VDIY94D	4	352.4	246	18	4	33
VDIYX25D	10	660.4	483	22	8	169