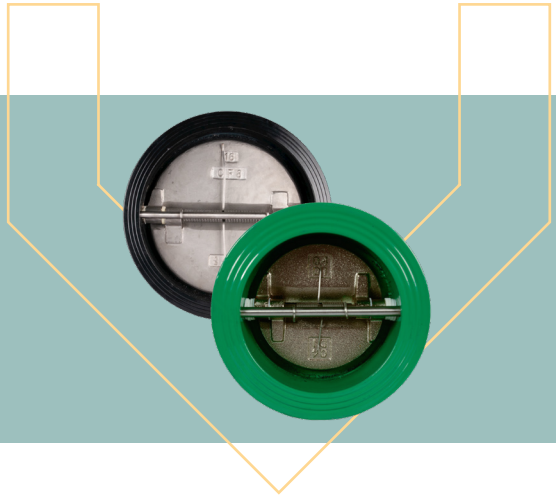
Cast Iron Dual Wafer Check Valve

Weights: 1.5kg - 172kg
Sizes: DN 50 – 600
Class: 150
Pressure: PN16
Temperatures: -2°C to 120°C



Application

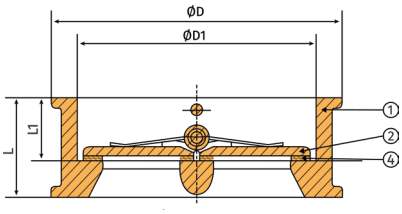
The Cast Iron Dual Wafer Check Valve is designed with two plates that swing open freely in response to fluid flow, allowing for efficient and obstruction-free passage. When the flow reverses, the plates quickly close, preventing backflow and potential damage to the system. This design ensures minimal pressure loss, making it an ideal choice for high-flow applications and fluid control systems. These valves prevent backflow and ensure the unidirectional flow of fluids, maintaining the efficiency and safety of the entire system.

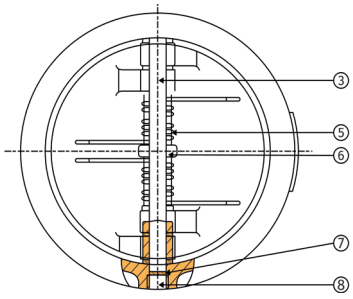
The wafer-style configuration makes it compact and lightweight, allowing for easy installation in tight spaces. It is compatible with various flange standards, making it adaptable to different piping systems. The dual plate design also reduces the overall size and weight of the valve while maintaining its excellent performance. Known for its exceptional durability, corrosion resistance, and heat resistance, Cast Iron makes it suitable for a wide range of industries and applications and Its reliable operation, low pressure drop, and robust construction make it a trusted choice for fluid control in critical applications.

Dimensions

NPS	DN	L	L1	ø D	ø D1	Kg
2	50	43	33	107	65	1.52
2.5	65	46	34	127	80	2.12
3	80	64	44	142	94	3.15
4	100	64	48	162	117	4.48
5	125	70	50	192	145	5.72
6	150	76	52	218	170	8.71
8	200	89	58	273	224	14.02
10	250	114	78	328	265	25.40
12	300	114	74	378	310	36.47
14	350	127	79	438	360	49.98
16	400	140	88	489	410	61.00
18	450	152	98	535	450	80.00
20	500	152	100	594	505	98.00
24	600	178	124	720	624	175.00

Diagram





#	Part	Material
1	Body	Cast Iron ASTM A126 B
2	Disc	NPDI or CF8 (304SS)
3	Stem	SS410
4	Seat	EPDM

#	Part	Material
5	Spring	SS304
6	Shim	PTFE
7	Seal	NBR
8	Plug	WCB

Specifications

Models
R16-N

Body Material
Cast Iron

Iron Grade
ASTM A126 B

SEAT
EPDM

Disc
Dual Plated NPDI or 304SS

Drill Tables
Table 10, 16, D, ASA150

Standards
Design & Manufacture to JB/T8937
End standard GB/T17241.6
Face to Face conform to JB/T8937
Shell test 2.4Mpa
Seal test 1.76Mpa
Air test 0.6Mpa

Services
Water, Oil, Gas

Industries
Petrochemicals and Petroleum, Refineries, Primary Energy, Agriculture, Water Works, HVAC

Priority Media
Acetylene, Air, Alumina, Carbon Monoxide, Cement, Diethylene Glycol, Methanol, Nitrogen Gas, Potassium Acetate, Silicone Oil, Starch, Dry Sulphur Dioxide

Inventory Code and Description
CIDUALR16-NN
CI DUAL R16-N WAFER CHECK NPDI DISC
Cast Iron Dual Model R16 NPDI Wafer
Check Valve Nickel Plated Ductile Iron Disc

CIDUALR16N
CI DUAL R16-N WAFER CHECK NPDI DISC
Cast Iron Dual Model R16 NPDI Wafer
Check Valve Nickel Plated Ductile Iron Disc

CIDUALR16-NS
CI DUAL R16-N WAFER CHECK SS DISC
Cast Iron Dual Model R16 Steel Wafer
Check Valve Stainless Steel Disc

Also Known As:
Double Door Valve, Reflux Valves, Non-return Valve, Stop Valve, One-Way Valve

Check Valves

Models:	VT493N ; VT493 ; R16-N ; R16
Class:	150 ; 125
Sizes:	DN 50 – 350 ; DN 50 - 600
Pressure:	PN16 ; PN14
Body Material:	Ductile Iron ; Cast Iron
Temperatures:	-10°C to 400°C ; -2°C to 120°C
Weights:	11kg - 235kg ; 1.5kg - 172kg

Specifications

Services

Petrochemicals and Petroleum, Refineries, Primary Energy, Agriculture, Water Works, HVAC

Industries

Water, Oil, Gas, Steam

Priority Media

Acetylene, Borax, Castor Oil, Caustic Soda, Detergents, Diethylene Glycol, Gasoline, Hydraulic Oil, Linseed Oil, Methyl Acetone, Nitrogen, Oxygen, Mercury, Propane Gas, Sodium Sulphate

Also Known As:

Check Valve
Non-return Valve
Stop Valve
One-Way Valve

Check Valve Details

The primary function of a Check Valve is to prevent backflow, enabling the flow control of media and ensuring that only a one-way direction of fluid flow is possible. If the flow reverses for any reason, such as pressure, velocity changes, or water hammer, the spring or arm-operated disc automatically closes.

Application

With a Swing Check Valve, the hinged-disc swings open during a forward motion of media which allows for minimal resistance of flow. The Dual Plated Wafer Check Valve, however, has two spring-loaded plates that open swiftly and independently of each other. Because both mechanisms are self-actuating, there is no need for mechanical or electronic control systems, making these devices a cost-effect alternative to complex installations.

They can be installed in various positions, both horizontally, diagonally, or vertically, and are secured either via drilled flanges, or seated between the flanges of connecting pipes. The main consideration for the installation is the flow of media, the direction of which is indicated on the valve itself for ease of use and understanding.

Typical applications of Check Valves include:

- **Preventing Backflow** of fluids in a piping system as the valve allows the flow of fluids in one direction while automatically blocking the reverse flow. This is particularly important in applications where backflow could lead to contamination, damage to equipment, or disruption of processes
- **Commonly used in sewage systems**, preventing the reverse flow of water or wastewater
- **Prevents condensate** from returning to the steam generator in steam applications

Advantages:

- **Prevents Backflow** by immediately closing the valve, therefore blocking the backwards regression of media back into the system,
- **No Electric or Manual Intervention** as changes in pressure or media flow direction create a passive yet immediate gravitational response
- **Reduces Water Hammer** impact when a sudden unexpected pressure surge occurs
- **Low Maintenance** due to the efficient design and fewer moving parts. The self-actuating mechanism has no complex componets
- **Versatile Applications** due to their ability to operate in high-and-low-pressure water, oil, gas, wastewater and plumbing systems

Common Industry Uses:

- HVAC Systems to regulate fluid flow and prevent the reverse flow of refrigerants or other fluids
- Water Treatment purification plants to manage the flow of water, preventing backflow and contamination
- Mining and Ore Processing to regulate the flow of slurry and other fluids, ensuring efficient processing and preventing damage to equipment
- Pulp and Paper Industry to control the flow of liquids and gases involved in various production processes
- Power Generation where maintaining the direction of fluid flow in steam, water, or gas systems is critical