



CHECK VALVE SERIES

Wafer Lift Check Valve

H71H

Compact automatic non-return valve for steam, water, oil and compatible industrial service, with ultra-thin wafer body and guided lift-disc construction.

01 Key Specifications

Product Type	Wafer lift check valve, automatic non-return, mounted between flanges
Nominal Size	DN15-DN400
Pressure Rating	PN16 / PN25 / PN40 / PN64; ASME Class 150 / 300
Body Materials	Ductile iron / WCB carbon steel / CF8 (SS304) / CF8M (SS316)
Sealing Surface	Cr13 stainless steel; Stellite hard-faced option where offered
Operation	Automatic - no external operator
Installation	Horizontal pipeline, bonnet upright; spring-loaded option for vertical installation
Typical Service	Steam / water / oil and compatible industrial media

02 Design Features & Configuration

Ultra-Thin Wafer Body

Short face-to-face dimension and low weight help save installation space and support compact piping layouts.

Automatic Non-Return

Forward flow lifts the disc; reverse flow closes the valve automatically without an external operator.

Guided Lift Disc

Short vertical travel provides quick closing response and stable alignment with the seat.

Cr13 Sealing Surface

Wear-resistant metal-to-metal sealing for steam, water, oil and compatible service.

Between-Flange Mounting

Installed between mating flanges using through-bolts; suitable for compact skids and retrofits.

Spring-Loaded Option

Available where faster closing or vertical-pipeline installation is required.

03 Materials of Construction

Component	Standard Material	Options
Body	Ductile iron or WCB carbon steel	CF8 (SS304) / CF8M (SS316)
Disc	Cr13 stainless steel	Stellite hard-facing where offered
Seat Surface	Cr13 stainless steel	Stellite hard-facing where offered
Guide	Cr13 stainless steel	SS304 / SS316 where offered
Spring	SS304 / SS316	High-temperature alloy where required
Gasket / O-ring	Graphite / SS spiral wound; NBR or FKM where fitted	Confirm for selected model
Mounting Bolts	Through-bolts selected for mating flanges and wafer body thickness	SS304 / SS316 where offered

04 Pressure Ratings & Temperature

Pressure Classes	PN16 / PN25 / PN40 / PN64; ASME Class 150 / 300
Ductile Iron	-20 C to +300 C reference
WCB Carbon Steel	-29 C to +425 C reference
CF8 (SS304)	-40 C to +600 C reference
CF8M (SS316)	-40 C to +650 C reference

Pressure derating applies as operating temperature increases. Final limits must be confirmed for the selected body material, sealing surface and spring configuration.

05 Operation & Installation

Standard Configuration	Horizontal pipeline with bonnet upright; gravity assists disc closing
Spring-Loaded Configuration	Horizontal or vertical pipeline; spring assists closing and reduces response time
Cracking Pressure	Depends on disc weight, spring force and valve size; confirm for selected model
Mounting Note	Confirm mating flange standard, bolt pattern, through-bolt length and gasket arrangement

06 Typical Reference Dimensions

DN	NPS	L mm	Flange OD mm	H mm	Weight kg
15	1/2 in	25	95	85	1.5
20	3/4 in	28	105	95	2.0
25	1 in	32	115	105	3.0
32	1-1/4 in	38	140	120	4.5
40	1-1/2 in	42	150	135	6.0
50	2 in	48	165	155	8.5
65	2-1/2 in	55	185	180	12.0
80	3 in	62	200	200	16.0
100	4 in	72	220	230	23.0
150	6 in	95	285	295	44.0
200	8 in	115	340	345	70.0
300	12 in	155	460	455	150.0
400	16 in	200	580	570	290.0

Dimensions are reference values for the supplied H71H data. Actual dimensions vary with pressure class, flange standard, material and spring configuration. Confirm final dimensions on the approved drawing.

07 Standards & Testing

Design / Manufacturing	GB/T 12236 / GB/T 12224 / ASME B16.34 / API 594 where applicable
Wafer Mounting	Between flanges; EN 1092-1 / ASME B16.5 / GB/T 9113 options
Pressure Testing	API 598 / GB/T 13927
Pressure-Temperature	ASME B16.34
Marking	Model, nominal size, pressure class, body material and flow-direction arrow

08 Quality & Documentation

Pressure Test Report

Shell and seat pressure testing documentation may be supplied for the selected order.

Dimensional Inspection

Key valve dimensions can be verified against the approved drawing.

Third-Party Inspection

Third-party inspection can be coordinated where required by the order.

Material Certificate

EN 10204 2.2 / 3.1 documentation available where specified.

Cracking Pressure Test

Available on request for spring-loaded configurations.

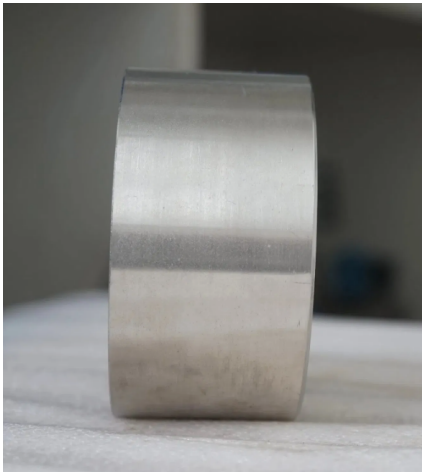
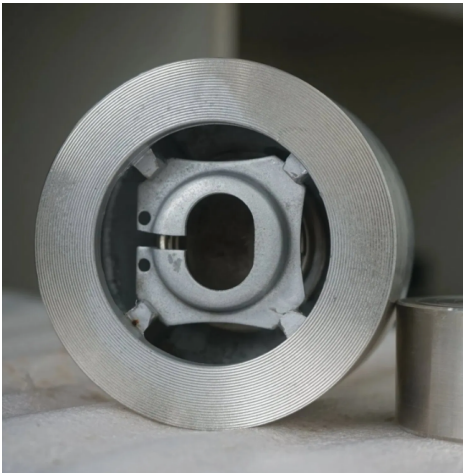
Export Documentation

Protective packing and shipment documents can be arranged for export supply.

09 Applications

- Pump discharge lines in compact piping systems
- Compressor discharge lines
- Steam headers, steam traps and auxiliary steam systems
- Water, condensate and boiler feedwater pipelines
- Oil and oil-product pipelines
- HVAC chilled water, condenser water and heating-water systems
- Skids, retrofits, risers and suspended piping where low weight and short face-to-face are beneficial

10 Product Views



11 Frequently Asked Questions

What is the difference between H71H, H41H and H44H?

H71H uses a compact wafer body and guided lift disc. H41H uses a flanged body with lift-disc construction. H44H uses a flanged swing disc and is preferred for larger sizes and lower pressure drop.

Can H71H be installed vertically?

The standard gravity-closing version is intended for horizontal installation with the bonnet upright. A spring-loaded version can be specified where vertical installation is required.

Why choose a wafer check valve?

The wafer body provides a much shorter face-to-face dimension and lower weight than a conventional flanged check valve, making it useful where installation space and weight are important.

Can H71H be used for gas service?

The supplied product information focuses on steam, water, oil and compatible industrial media. Gas service should be confirmed for the selected model, materials, pressure, leakage requirements and applicable project standards.

12 How to Order

Send the valve size and quantity, body material, pressure class, mating flange standard, sealing-surface requirement, service medium and operating temperature, installation orientation, spring-loaded requirement, and required quality documentation. ZeMin Gas can support configuration confirmation before quotation.

Note: Technical data in this datasheet is based on the product information supplied for H71H. Final dimensions, materials, ratings and documentation should be confirmed against the approved quotation and drawing for the selected model.