

**SINTEK**

3DV

Multi-function 3-in-1 check valve

**Instruction manual**

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## 1. Overview:

Multifunctional valve, with silent check, flow regulation, eliminate the three functions of the water hammer switch open and close, can replace the silent check valve, regulating valve water hammer absorber and stop valve three kinds of valves, forming a three-in-one, and to save costs and installation space, can be widely used in building buildings, water supply and drainage and HVAC and other waterway system pump outlet end. Ii.

## 2. Features:

Its rubber soft seal disc with return spring provides silent check and protection against water hammer.

By adjusting the opening of the valve, the flow rate of the pump outlet is controlled.

A ruler is included to visually display the opening of the valve when it is opened.

Can save parts material costs and installation time, save ground space.

Can be installed vertically or horizontally on the pipe.

Y-shaped design reduces head loss.

The CV value of the check valve is larger than that of the general check valve, which makes the system run quietly and noiseless.

The valve body has a plug on the bend side to measure flow or

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temperature.

### 3. technical parameters:

Nominal diameter: DN25~DN800mm.

Nominal pressure: 1.0Mpa~10.0Mpa.

Valve body pressure: 1.5Mpa~15.0Mpa.

Sealing pressure (fully closed) : 1.1Mpa~13.7Mpa

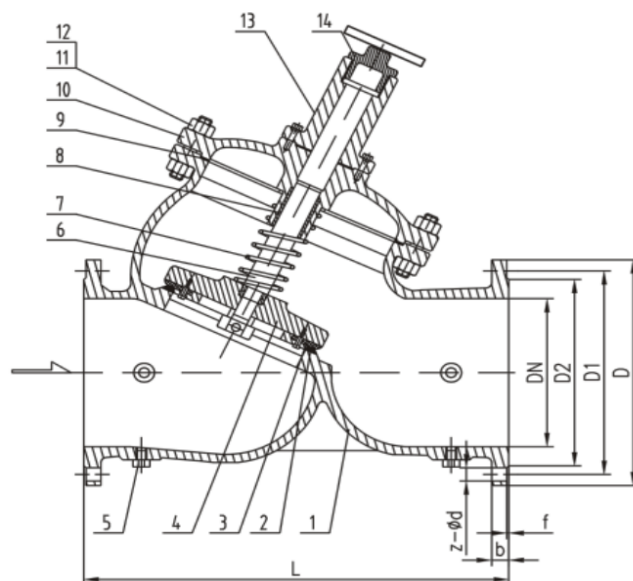
Operating temperature: -10°C~120°C, -10°C~425°C

Applicable media: water, steam, oil

### 4. Material description

NO.	Name	Material
1	Body	Stainless steel/WCB/DI
2	Seat	WCB/SS304
3	Sealing ring	Epdm, butadiene rubber, stainless steel
4	Valve clack	Cast steel, stainless steel
5		
6	Stem	Stainless steel
7	Spring	Stainless steel
8		
9	Sealing gasket	Graphite
10	Valve cover	Cast steel, ductile iron, stainless steel

## 5. Section view and dimensions



## 6. Main connection size (according to ASME B16.5-2009)

DN	Installation mode	L	D	D1	Z-φ	H
50	Flange connection	200	153	120.5	4×18	210
65		210	180	139.5	4×18	250
80		250	190	152.5	8×18	290
100		280	230	190.5	8×18	320
125		330	255	216	8×22	380
150		350	280	241.5	8×22	420
200		420	345	298.5	8×22	500
250		490	405	362	12×26	680
300		540	485	432	12×26	730
350		625	535	476	12×29.5	830
400		685	600	540	16×29.5	1280
450		780	635	578	16×32.5	1400
500		840	700	635	20×32.5	1600

Note: Flange size according to ANSI standard

Valve testing experiments according to GB/T13927 standard

Designed and manufactured according to GBT/12237 standard

## 7. Multi-function valve installation comparison:

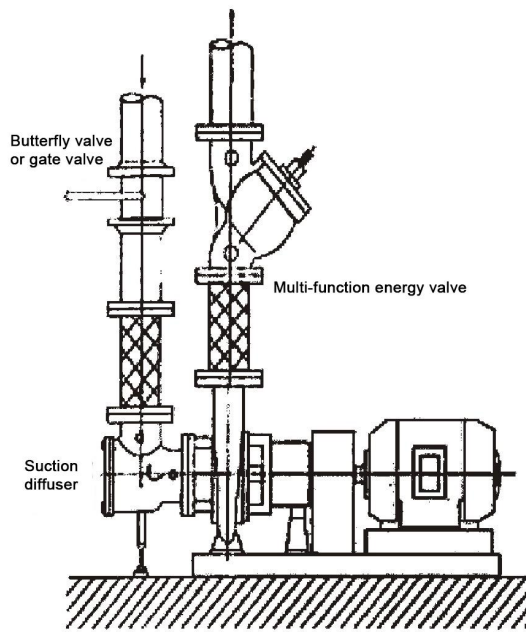


Figure 1

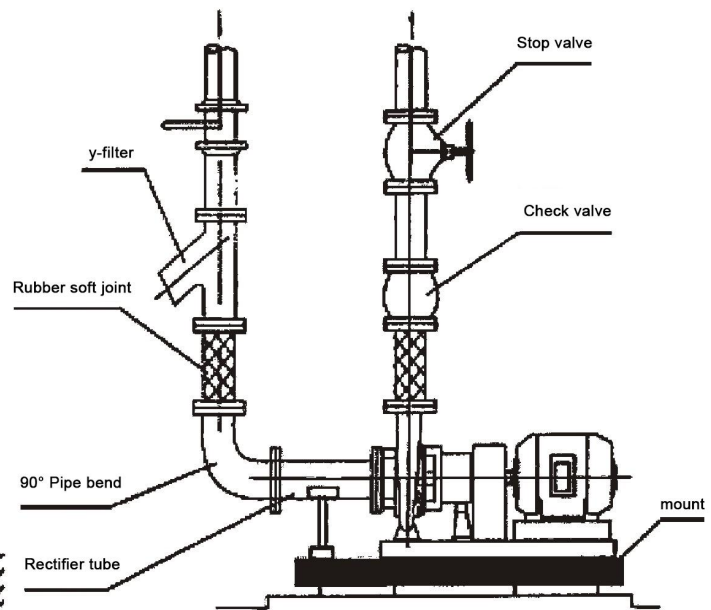


Figure 2

Figure 1: Installation diagram of suction diffuser and multi-function valve

Figure 2: Traditional pumping system installation diagram

## 8. Note:

- ① When closing the manual valve stem, do not be too tight to avoid damage to the sealing surface.
- ② Multi-function valve can be installed horizontally, can also be installed vertically, can not be inverted.
- ③ Multi-function valve found leaking, according to (material description 8) replacement.
- ④ The valve stem seal ring is found leaking, please install the press (material description 2).

# TYPICAL DEVICE

