

## Description

The SF9 type is a double spring flanged safety valve suitable for Steam, Hot and Cold water.

## Limiting Conditions

Body Design Condition	PN40
Maximum Design Temperature	300 °C
Maximum Cold Hydraulic Test Pressure	60 kgf/cm <sup>2</sup>
Maximum Allowable Pressure	25 kgf/cm <sup>2</sup>
Minimum Allowable Pressure	3 kgf/cm <sup>2</sup>



## Operation Range

3 to 25 kgf/cm<sup>2</sup> by the order.

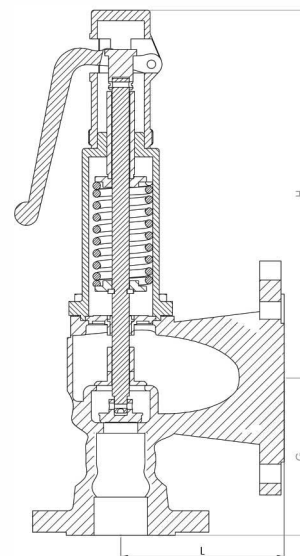
## Sizes and Pipe Connections

DN 50X100 Flanged (DIN 2502)

## Dimensions / Weights (Approximate) mm and Kg

Connection		L	G	H	Weight
Inlet	Outlet				
DN 50	DN 100	155	150	350	31

Constructions are a bit different according the sizes.





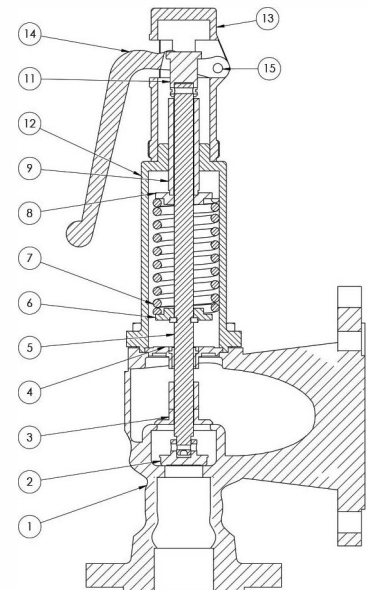
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E.S.E. Valve Co.

## Double Spring Safety Valves - SF9

### Materials

No.	Part	Material
1	Body	AISI 420
2	Disc	AISI 316
3	Reaction Disc	AISI 316
4	Guide	AISI 304
5	Spindle	AISI 304
6	Spring Washer Down	AISI 304
7	Spring	AISI 320
8	Spring Washer Up	AISI 304
9	Adjusting Bolt	AISI 304
10	Adjusting Nut	AISI 304
11	Lifting Device	AISI 304
12	Bonnet	GGG 40
13	Cap	GGG 40
14	Lever	GGG 40
15	Pin	AISI 304



### Safety Valves Capacities for Steam (kg/h)

Size	Set pressure kgf/cm <sup>2</sup>					
	3	5	10	15	20	25
DN 50X100	1600	1800	3200	4500	5800	7200

### Safety Valves Capacities for Hot and Cold Water (kg/h 10<sup>3</sup>)

Size	Set pressure kgf/cm <sup>2</sup>					
	3	5	10	15	20	25
DN 50X100	12	16	24	30	42	50

### Calculation Formula for Relieving Capacity

Considering thermal input of the vessel

$$W = 0.840 \times 10^{-3} Q \quad W = \text{Relieving capacity (kg/h)} \quad Q = \text{Thermal input (kcal/h)}$$

### Installation

The safety valve should always be fitted with the center line of the spring housing vertically above the valve.

Note: The condensed drain must be fitted.

### How to Order

Example: SF9 – DN50X100, Set Pressure 15 kgf/cm<sup>2</sup> for steam.

Design and specification are subject to change without notice