



**OPERATION AND MAINTENANCE MANUAL FOR  
BOSS™ FIG. 114SS STAINLESS STEEL SWING  
CHECK VALVE**

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## PURPOSE, FEATURES AND SCOPE OF APPLICATION

The Fig. 114SS stainless steel swing check valve is suitable for use with water, non corrosive gases, oil and steam to a maximum temperature of 160 °C. Minimum liquid temperature must be no lower than -20 °C . It is rated for a maximum working pressure of 13.8 bar at 38 °C and 6.9 bar at 160 °C.

## STANDARDS MET

BS21

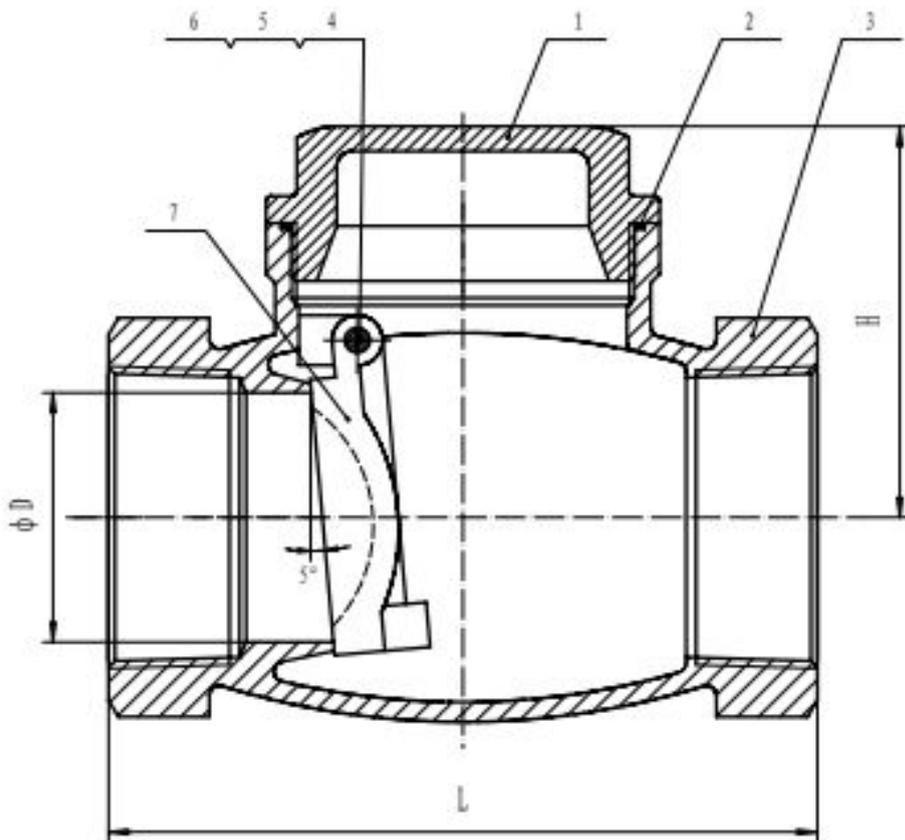
ISO 7-1

REACH (EC No. 1907/206)

## PERFORMANCE

Connection Type	Maximum Pressure Rating	Operating Temperature Range
Screwed BSPT inlet and outlet to ISO 7-1	13.8 barg @ 38 °C 6.9 barg @ 160 °C	-20 to +160 °c

## SPECIFICATION



## DIMENSIONS (mm unless otherwise stated)

DN	L	H	ØD	Weight (kg)	Kv Value
15	65	43	15	0.32	6.0
20	80	53	20	0.49	16.7
25	90	60	25	0.74	26.0
32	105	60	32	1.14	42.4
40	120	75	38	1.50	62.3
50	140	79	50	2.32	112.5

## **MATERIALS OF CONSTRUCTION**

<b>No.</b>	<b>Part</b>	<b>Material</b>	<b>Grade</b>
<b>1</b>	<b>Bonnet</b>	<b>Stainless Steel</b>	<b>CF8M</b>
<b>2</b>	<b>Gasket</b>	<b>PTFE</b>	
<b>3</b>	<b>Body</b>	<b>Stainless Steel</b>	<b>CF8M</b>
<b>4</b>	<b>Hanger Pin</b>	<b>Stainless Steel</b>	<b>304</b>
<b>5</b>	<b>Plug Gasket</b>	<b>PTFE</b>	
<b>6</b>	<b>Plug</b>	<b>Stainless Steel</b>	<b>304</b>
<b>7</b>	<b>Disc</b>	<b>Stainless Steel</b>	

## **TRANSPORTATION AND STORAGE**

**All valves should be inspected at the time of delivery for shipping damage, missing parts, and conformance with the specifications**

**The valves should be stored in a dust free, low humidity, dry and ventilated environment. End cap protectors should be in place when the valves are in storage.**

## MAINTENANCE

<b>Fault</b>	<b>Cause</b>	<b>Action</b>
<b>Leakage at the junction of the valve and the bonnet</b>	<b>The connection is loose</b>	<b>Tighten connection</b>
	<b>The gasket is broken or missing</b>	<b>Replace the gasket</b>
<b>Sealing surface leakage</b>	<b>The sealing surface has contaminant adhesion</b>	<b>Remove dirt</b>
	<b>Sealing surface is damaged</b>	<b>Rework trimming or replacement</b>

The valve should be inspected regularly paying particular attention to the following items:

- 1. Whether the sealing surface is damaged or severely worn.**
- 2. Whether the flap rotation is free and there is no barrier.**
- 3. Whether the body is severely corroded or worn.**

Once these checks have been made and the valve reassembled, a pressure test must be carried out and the inspection recorded.

## **INSTALLATION AND USE**

**Installation should be carried out by appropriately trained personnel.**

**The swing check valve can be installed in a horizontal or vertical position with the arrow on the side of the valve pointing vertically upwards when installing the valve in a vertical position. The flow of the product in the piping system should be in the direction of the arrow on the side of the valve body.**

**Before installation, the inner cavity should be inspected, the valve end caps should be removed, the valve flap inspected and the sealing surface inspected and cleaned.**

**Seals such as PTFE tape should be used between the internal threads of the check valve during installation**

**The working condition of the valve should be consistent with the specification of the data sheet.**

**When the valve is closed, water hammer pressure will be generated in the pipeline, which will cause damage to the valve. The operator should check this regularly to find the problem and rectify the fault.**

## **WARRANTY**

**12 months**