

## WFB TYPE – FEATURES

### Saunders® WFB Design

Hand wheel sized for comfortable grip and easy operation

Lubricated for life, and protected from dust, dirt and atmospheric contaminants.

Yellow valve indicator provides visual indication on the position of the valve

Diaphragm replaceable with the valve inline

Compressor provides support to the diaphragm in all positions, improving the life of the diaphragm

Different end connections available

Special diaphragm material designed to withstand temperatures up to 540°C

Reinforced diaphragms give long life and leak free operation

Different screwed combinations available

**Saunders® WFB valves provide a reliable solution for fire and marine applications.**

**With fire you only get one chance!**

# WFB TYPE-STANDARDS

Saunders® WFB valves are utilised as fire mains hydrants and in tank cleaning services for marine and offshore oil installations. Available in DN40 and DN65 sizes, these are highly specialised valves that have been tested and approved by the world's leading safety agencies, and are designed to work up to a maximum pressure of 15 bar.



“We specified Saunders WFB 65 mm nominal bore fire-mains hydrant valves for our ferries and cruise liners. Significant factors behind this choice are the excellent reliability and the low maintenance costs.”  
P&O Cruises (UK) Ltd

## Valve Standards

Saunders® WFB valves are manufactured to the following standards:

Flanged	
<b>American</b>	ASME/ANSI B16.24 Class 150 (Gunmetal)
	ASME/ANSI B16.34 Class 150 (SG iron)
<b>British</b>	BS 10 Tables D & E (Gunmetal and SG iron)
<b>British/ European<sup>1</sup></b>	BS EN 1092-2 PN10/16 (SG iron)
	BS EN 1092-3 PN10/16 (Gunmetal)
<b>Japanese</b>	JIS 2239 10K (SG iron)
	JIS 2240 10K (Gunmetal)

<sup>1</sup> Replaces BS 4504 PN10/16

Screwed	
<b>America</b>	NFPA <sup>2</sup> 1963 1.5-9 NH (DN40)
	NFPA <sup>2</sup> 1963 2.5-7.5 NH (DN65)
<b>British/ European<sup>3</sup></b>	BS EN 10226-1 Parallel
	BS EN 10226-2 Taper

<sup>2</sup> National Fire Protection Association

<sup>3</sup> Replaces BS 21 Parallel and Taper



Lloyds Register of Shipping  
LR Type Approval Certificate  
Certificate No: 97/00047  
Model: DN40, DN65



Bureau Veritas  
Type Approval Certificate  
Certificate No: 2207 3457 C10 H  
Model: DN40, DN65



Registro Italiano Navale  
Rina  
Type Approval  
Certificate No: MAC/057/94  
Model: DN65



American Bureau of Shipping  
List of Type Approved Equipment  
Page 25.  
Certificate No: 96-WM10305-X  
Model No: DN40, DN65

## Product Approvals

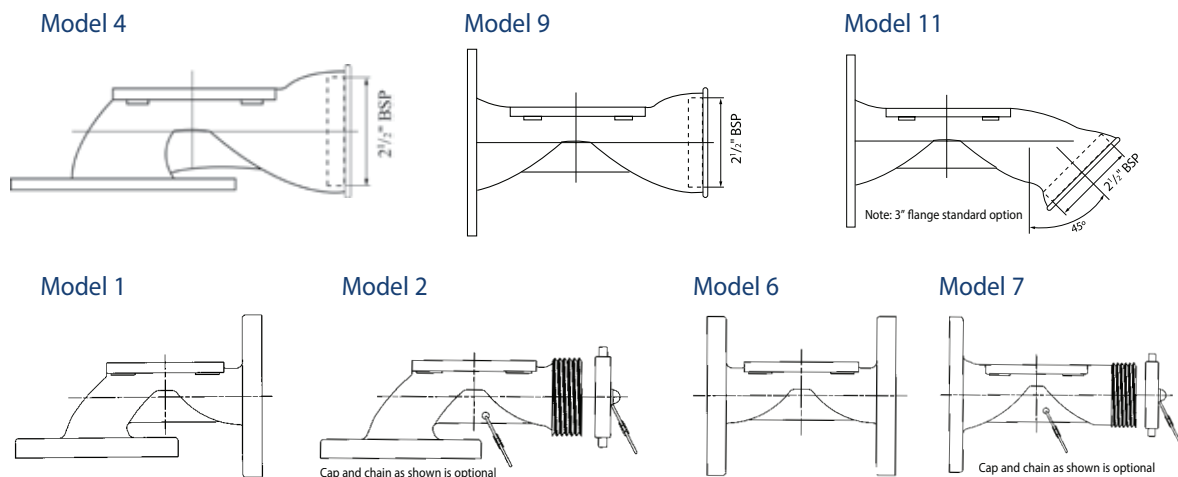
The whole fire hydrant valve has successfully undergone a high-temperature resistance test (540°C for 20 minutes), BS 5041 Part 1, audited by a Lloyds Surveyor.

# WFB TYPE - BODY AND DIAPHRAGM

## Body

WFB valves are available in SG iron or gunmetal providing high mechanical strength and resistance to accidental impact. Gunmetal bodies provide superior corrosion resistance, even on highly-demanding applications.

Saunders® provides different WFB valve designs with both female and male end connections for different applications. Additionally, couplings and chains e.g. Morris Instantaneous coupling for the female screwed ends, are available.



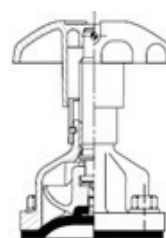
## Diaphragm

The diaphragm separates the working parts of the valve from the line media, so there is no chance of internal corrosion of the valve, which is the main cause of fire valve failure.



Diaphragm	Composition	Applications
286	CSM (Chlorosulfonated Polyethylene)	Fire resistant diaphragm specifically designed for fire application valves.
226	FKM (Fluoroelastomer)	This diaphragm (not fire resistant) is a perfect solution for wash decks, with great resistance to lubricating oils and fuel.

## Top Works



**Standard bonnet - Rising handwheel with indicator**  
All valve sizes

# WFB TYPE - FULLY ASSEMBLED VALVE

## Body Material Options and Weights

Size (DN)	Models							Body Materials
	1	2	4	6	7	9	11	
40	-	✓	✓	-	✓	✓	-	Gunmetal
65	✓	✓	✓	✓	✓	✓	✓	Gunmetal or SG Iron

Body Materials	Size (DN)	Weight (kg) / Model		
		4	9	11
Gunmetal	40	8.8	8.5	9.8
	65	10.3	10.0	11.5
SG Iron	65	8.4	7.9	9.8



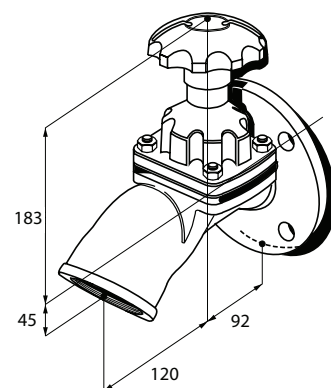
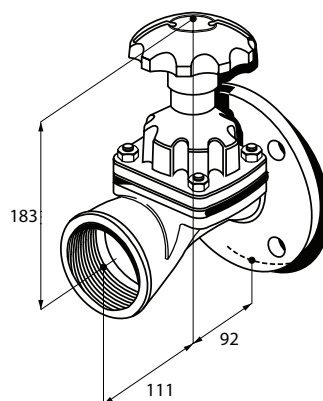
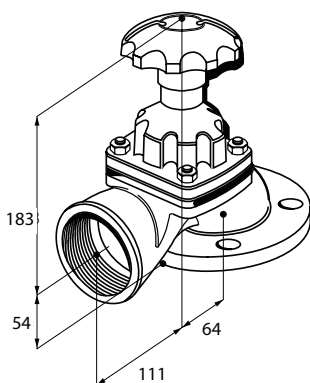
Model 4 with body and bonnet material in SG iron



Model 9 with body and bonnet material in gunmetal



Model 11 with body and bonnet material in gunmetal



All dimensions are specified in mm.

**Pressure testing:** Saunders® WFB valves tested in accordance with the BS5041 standard i.e. body strength test to 22.5 bar, seat test to 16.5 bar (1.1 x maximum working pressure).