

# TECHNICAL SPECIFICATION

## *Camlock Adaptors*

**Product Description**

**Principle of Operation**

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## **PRODUCT DESCRIPTION**

The two Camlock adaptor designs have a contoured surface which conforms to the shape of a round header on one face and a flat face which seals against the flange mounting of the FS style diaphragm valve.

## **Typical Applications**

The Camlock adaptors are used as an alternative to pipe stubs requiring flat flanges to be welded onto headers. This arrangement simplifies header tank preparation.

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## **PRINCIPLE OF OPERATION**

### **Functionality**

The Camlock adaptors facilitate the mounting of the 25FS and 45FS valves to round headers without the need for additional welding. These adaptors are located and secured against the tank wall prior to mounting the valve using a patented cam arrangement. The cams engage through a hole in the tank wall and lock the adaptor into place.

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## **PERFORMANCE**

### **Flow Performance**

Valve performance is not affected by the installation of Camlock adaptors.

### **Pressure Rating**

Maximum Working Pressure:	860 kPa (125 psi)
Recommended Working Pressure:	760 kPa (110 psi)
Maximum Negative Pressure:	2500 Pa ( 10" Wg)

### **Temperature Rating**

Working Temperature Range: -40°C to 80°C (-40°F to 176°F)

### **Fluid Media**

Dry air or inert gas

### **Unit Weight**

25 Camlock	0.24 kg (0.53lbs)
45 Camlock	0.35 kg (0.77 lbs)

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## CONSTRUCTION

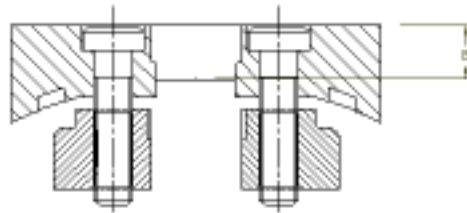
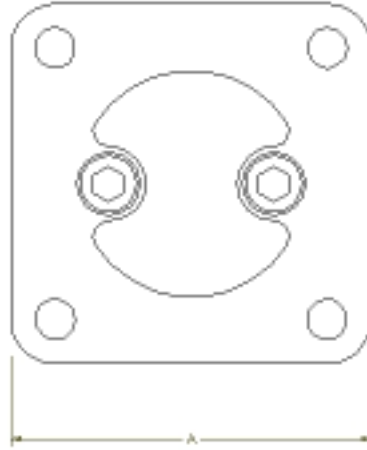
### Body

Cam's & Flanges	Pressure Die Cast Aluminium	CA313
	Specification standards:	
	Australia	CA313
	British	LM24
	European	AlSi8Cu3Fe
	AL Association Alloy	A380.0
Cam screws	Stainless Steel 304	

**DIMENSIONAL DETAILS**

**Envelope Size**

See attached drawing



Adaptor Size	Dimension A mm (in)	Dimension B mm (in)
25FS	84 (3.30)	10 (0.39)
45FS	96 (3.78)	14 (0.55)

## Connections

Adaptor Size	Securing Bolt Size
25FS	M8
45FS	M10

## Mounting Details

The following table lists the corresponding hole sizes which needs to be cut into the headers.

Adaptor Size	Hole Size mm (inches)
25FS	51 +/-1 (2.01)
45FS	63 +/- 1 (2.48)

The hole should be cut using an appropriate hole saw or boring tool and should not be made using oxy/acetylene gas cutting techniques and should be free from burrs.

The adaptors should be centred over the header through hole as closely as possible with the cams loosened off as necessary to allow clearance for easy rotation. Ensure the o-ring seal is placed in the o-ring groove, a small protrusion in the side of the groove assists in retaining the o-ring in the grove. Rotate the cams to engage the edge of the through hole until the groove on the cam aligns with the centre-line marks on the flange and tighten the cap screws to the torque settings specified below:

Adaptor Size	Screw Diameter mm	Max. Torque Nm (ftlbs)
25FS	8	8 (6)
45FS	10	10 (7.4)

**Note:** Camlock Screws, should be coated with loctite 222, prior to alignment and tensioning if they are not already coated with Dri-lok (211).

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## HOW TO ORDER

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Product Code	FS Valve Size mm	Tank Diameter mm (inches)
K2514-2	25	150 (6)
K4524-2	45	150 (6)
K4515-2	45	200 (8)
K4525-2	45	250 (10)

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