



**SXE DN 65÷100**  
PVC-C

Easyfit True Union ball check valve

# SXE DN 65÷100

The SXE Easyfit check valve with ball shutter line developed with Giugiaro Design stands out for the innovative installation method that guarantees reliable service over time. This valve is also equipped with a customising Labelling System.

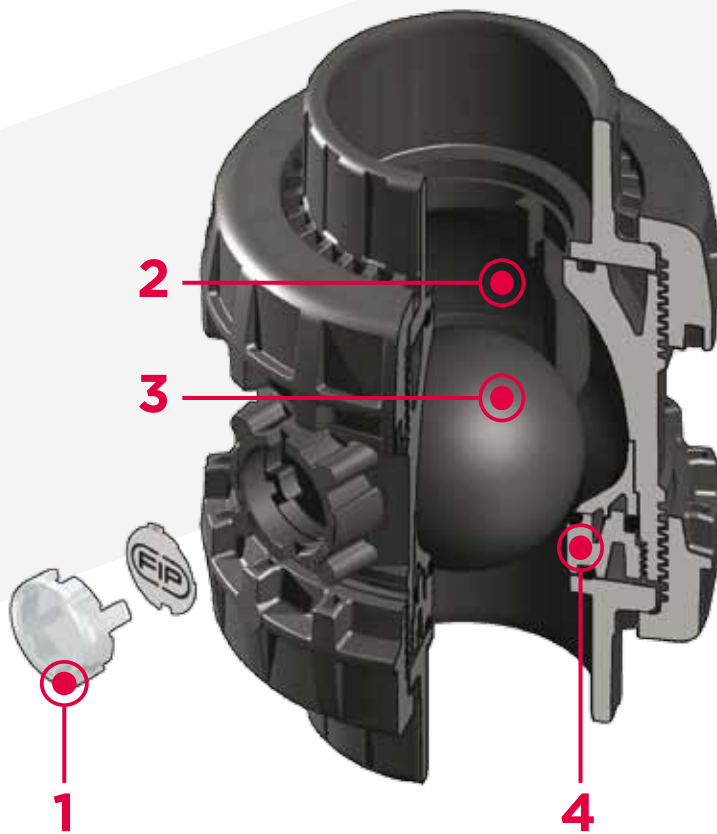


## EASYFIT TRUE UNION BALL CHECK VALVE

- Connection system for solvent weld and threaded joints
- Valve material compatibility **(PVC-C) with water conveyance, drinking water and other food substances according to** current regulations
- **PN16 True Union valve body** made for PVC-C injection moulding and European Directive 97/23/EC compliant for PED pressurised equipment. ISO 9393 compliant test requirements
- Easy radial disassembly and fully interchangeable with VXE 65-100 valve models
- Union nut profile that perfectly adapts to the Easyfit multifunctional handle hooked insert (available as an accessory) that lets you control union nut rotation
- Can be **installed** in either a **vertical** (preferable) or **horizontal** position

### Technical specifications

<b>Construction</b>	Easyfit True Union ball check valve with locked carrier
<b>Size range</b>	DN 65 ÷ 100
<b>Nominal pressure</b>	PN 16 with water at 20° C
<b>Temperature range</b>	0 °C ÷ 100 °C
<b>Coupling standards</b>	<b>Solvent welding:</b> EN ISO 15493, ASTM F 439. Can be coupled to pipes according to EN ISO 15493, ASTM F 441 <b>Thread:</b> ISO 228-1, DIN 2999, ASTM F437
<b>Reference standards</b>	<b>Construction criteria:</b> EN ISO 16135, EN ISO 15493 <b>Test methods and requirements:</b> ISO 9393 <b>Installation criteria:</b> DVS 2204, DVS 2221, UNI 11242
<b>Valve material</b>	PVC-C
<b>Seal material</b>	EPDM, FPM (standard size O-Ring)



**1 Customisable Labelling System: built-in LCE module** on the valve body made up of transparent protection plug and customisable tag holder using the LSE set (available as accessory). The customisation lets you **identify the valve on the system according to specific needs**

**2 Optimised dynamic fluid design:** energy savings due to the improved valve Kv value and consequent reduced pressure drop

**3 High surface finish ball shutter: reduced wear,** longer working life and reduced valve maintenance. Ideal to convey dirty fluids, even with suspended fluids or filaments, thanks to the special design that permits **internal valve self-cleaning**

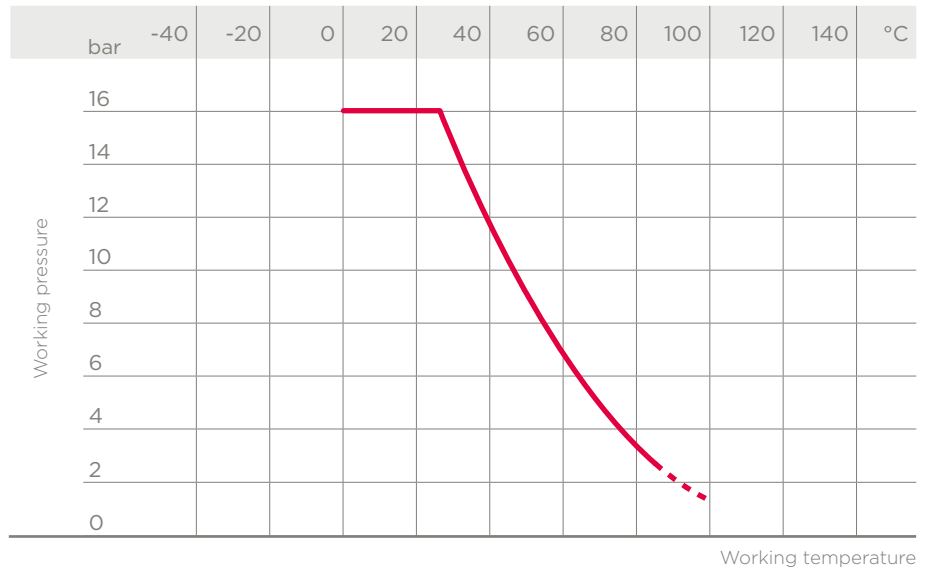
**4 Locked ball seat carrier:** safe disassembly for maintenance with the Easyfit multifunctional handle

# TECHNICAL DATA

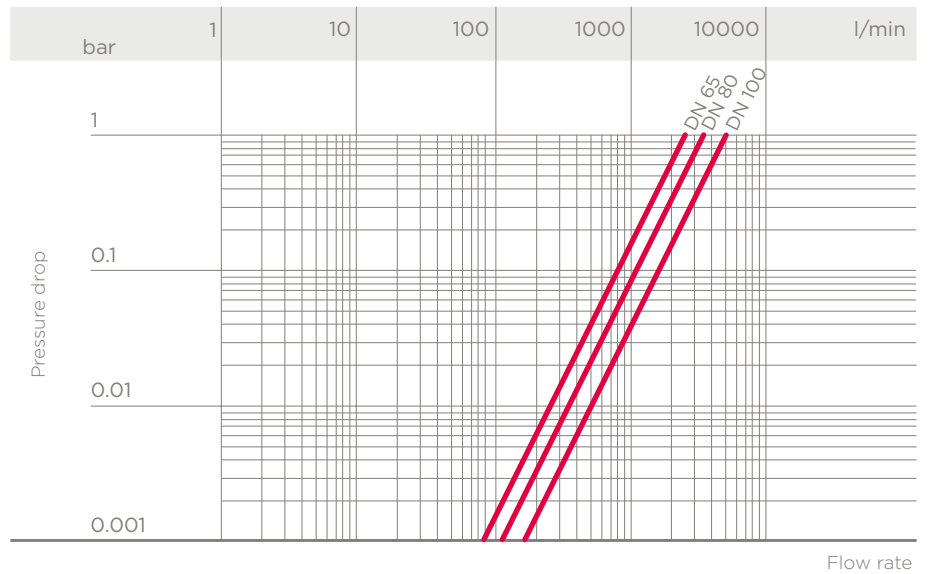
## PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).

Note: When using PVC-C at working temperatures higher than 90°, it is advisable to first contact the service centre.



## PRESSURE DROP GRAPH



## K<sub>v</sub>100 FLOW COEFFICIENT

The K<sub>v</sub>100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate  $\Delta p = 1$  bar pressure drop at a certain valve position.

The K<sub>v</sub>100 values shown in the table are calculated with the SXE valve completely open.

DN	65	80	100
K <sub>v</sub> 100 l/min	2586	3444	5093

## MINIMUM VALVE SEALING PRESSURE

DN	65	80	100
SXE (bar)	0.2	0.2	0.2

The PVC-C SXE valve can only be used with liquids with specific weight under 1.50 g/cm<sup>3</sup>.

The information in this leaflet is provided in good faith. No liability will be accepted concerning technical data that is not directly covered by recognised international standards. FIP reserves the right to carry out any modification. Products must be installed and maintained by qualified personnel.

# DIMENSIONS



## SXEIC

Easyfit ball check valve with female ends for solvent welding, metric series

d	DN	PN	E	H	L	Z	g	EPDM Code	FPM Code
75	65	16	157	211	44	123	2839	SXEIC075E	SXEIC075F
90	80	16	174	248	51	146	3597	SXEIC090E	SXEIC090F
110	100	16	212	283	61	161	6289	SXEIC110E	SXEIC110F



## SXEAC

Easyfit ball check valve with female ends for solvent welding, ASTM series

d	DN	PN	E	H	L	Z	g	EPDM Code	FPM Code
2" 1/2	65	16	157	211	44.5	122	2839	SXEAC212E	SXEAC212F
3"	80	16	174	248	48	152	3597	SXEAC300E	SXEAC300F
4"	100	16	212	283	57.5	168	6289	SXEAC400E	SXEAC400F



## SXENC

Easyfit ball check valve with female ends, NPT thread

R	DN	PN	E	H	L	Z	g	EPDM Code	FPM Code
2" 1/2	65	16	157	211	33.2	144.6	2839	SXENC212E	SXENC212F
3"	80	16	174	248	35.5	177	3597	SXENC300E	SXENC300F
4"	100	16	212	283	37.6	207.8	6289	SXENC400E	SXENC400F

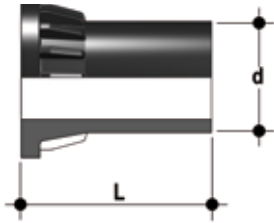


## SXEFC

Easyfit ball check valve with BSP threaded female ends

R	DN	PN	E	H	L	Z	g	EPDM Code	FPM Code
2" 1/2	65	16	157	211	30.2	150.6	2839	SXEFC212E	SXEFC212F
3"	80	16	174	248	33.3	181.4	3597	SXEFC300E	SXEFC300F
4"	100	16	212	283	39.3	204.4	6289	SXEFC400E	SXEFC400F

# ACCESSORIES



## CVDE

Long spigot PE100 end connectors for joints with electrofusion fittings or for butt welding

d	DN	PN	L	SDR	Code
75	65	16	111	11	CVDE11075
90	80	16	118	11	CVDE11090VXE
110	100	16	127	11	CVDE11110VXE



## EASYFIT HANDLE DN 65÷100

Easyfit multifunctional handle for union nuts tightening SXE-SSE DN 65÷100

d	DN	Code
75	65	HSVXE075
90	80	HSVXE090
110	100	HSVXE110



## LSE

Customisation set and label printing for Easyfit handle made up of precut adhesive sheets and software for guided label creation.

d	DN	Code
75	65	LSE063
90	80	LSE063
110	100	LSE063

# CUSTOMISATION

The SXE DN 65÷100 Easyfit valve is equipped with a Labelling System.

This system lets you create special labels to affix to the valve body. This makes it extremely easy to apply company logos, identification serial numbers or service indications such as, for example, the valve function in the system, the transported fluid, but also specific information for customer service, such as the customer name or installation date or location on the valves.

The specific LCE module is a standard supply and is made up of a rigid transparent water-resistant PVC plug and white tag holder made of the same material, one side of which bears the FIP logo.

The holder, inserted in the plug, can be removed and, once overturned, used for customisation by applying labels printed with the software supplied with the LSE set.

Proceed as follows to apply the label on the valve:

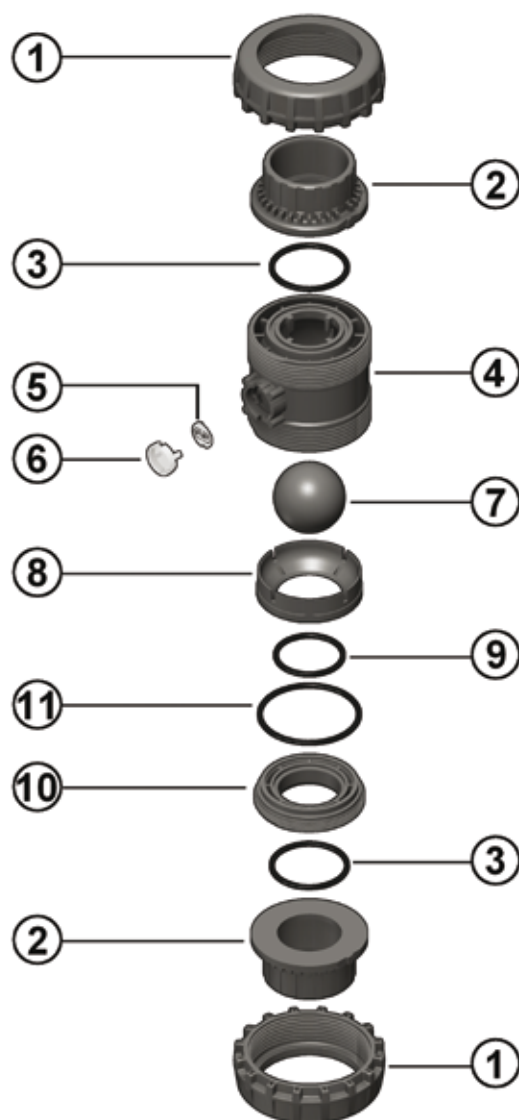
- 1) Remove the transparent plug from the housing on the valve body.
- 2) Extract the tag holder from the transparent plug.
- 3) Apply the adhesive label on the tag holder to align the profiles matching the tab position.
- 4) Reinsert the tag holder in the transparent plug so that the label is protected against the elements.
- 5) Replace the transparent plug in its seat on the valve body.





# COMPONENTS

## EXPLODED VIEW



- 1 • Union nut (PVC-C - 2)
- 2 • End connector (PVC-C - 2)
- 3 • Socket seal O-ring (EPDM o FPM - 2)
- 4 • Body (PVC-C - 1)
- 5 • Tag holder (PVC - 1)

- 6 • Transparent protection plug (PVC - 1)
- 7 • Ball (PVC-C - 1)
- 8 • Gland packing ring (PVC-C - 1)
- 9 • Ball seat O-Ring (EPDM o FPM - 1)
- 10 • Ball seat carrier (PVC-C - 1)

- 11 • Radial seal O-Ring (EPDM o FPM - 1)

The material of the component and the quantity supplied are indicated between brackets

## DISASSEMBLY

SXE valves do not require maintenance in normal operating conditions. In the event of leaks or wear, before performing maintenance, cut-off fluid upstream from the valve and make sure it is depressurised (downstream drain if necessary).

- 1) Fully drain residual liquid that could be aggressive for the operator and, if possible, circulate water to internally clean the valve.
- 2) For easy union nut tightening in assembly, use the Easyfit multifunctional handle (supplied as an accessory).
- 3) Unscrew the ball seat carrier (10) with the Easyfit multifunctional handle: introduce the two protrusion on the top of the handle in the grooves in the carrier (10) and unscrew, extracting it counter-clockwise.
- 4) Remove all internal components.

## ASSEMBLY

- 1) Reconstruct the valve following the exploded view on the previous page.
- 2) Tighten the ball seat carrier (10) using the Easyfit multifunctional handle. This ensures optimal valve installation and operations (fig. 3).
- 3) Position the valve between the end connectors (2) and tighten the union nuts clockwise (1) using the Easyfit multifunctional handle (fig. 7) being sure the socket seal O-ring (3) does not exit the seats.



**Note:** during assembly, it is advisable to lubricate the rubber seals. Mineral oils are not recommended for this task as they react aggressively with EPDM rubber.

Fig. 1



Fig. 2



Fig. 3



Fig. 4



# INSTALLATION

SXE valves can be installed both vertically (upward flow) or horizontally (with a minimum 0.2 bar back pressure).

Before proceeding with installation, please follow these instructions carefully:

- 1) Check that the pipes to be connected to the valve are aligned in order to avoid mechanical stress on the threaded joints.
- 2) Unscrew the union nuts (1) from the body (4) and insert them in the pipe segments.
- 3) Solvent weld or screw the end connectors (2) onto the pipe segments.
- 4) Position the valve body between the end connectors (fig. 1).
- 5) Place the union nuts on the valve body and start tightening manually clockwise until they are hard to turn. Do not use wrenches or other tools that can damage the union nut surface (fig. 2).
- 6) For easy union nut tightening in assembly, use the Easyfit multifunctional handle (supplied as an accessory).
- 7) Extract the hooked insert in the handle (fig. 5) overturn it and fit it in the seat on the lower part of the handle (fig. 6).
- 8) Fit the tool on the external union nut profile until firmly and safely secured that allows for adequate torque without damaging the union nut in any way (fig. 7).
- 9) Repeat point 7 for the other union nut.
- 10) When tightened, remove the hooked insert and replace it in its seat in the handle.
- 11) If necessary, support the pipe with FIP pipe clip model ZIKM and DSM spacers.

## WARNINGS

- If volatile liquid such as Hydrogen Peroxide ( $H_2O_2$ ) or Sodium Hypochlorite ( $NaClO$ ) are used, for safety reasons we recommend you contact the service centre. These liquids, upon vaporising, could create hazardous over pressures in the area between the body and ball.
- Do not use compressed air or other gases to test thermoplastic lines.
- Always avoid sudden closing manoeuvres and protect the valve against accidental manoeuvres.

Fig. 5



Fig. 6



Fig. 7



Fig. 8

