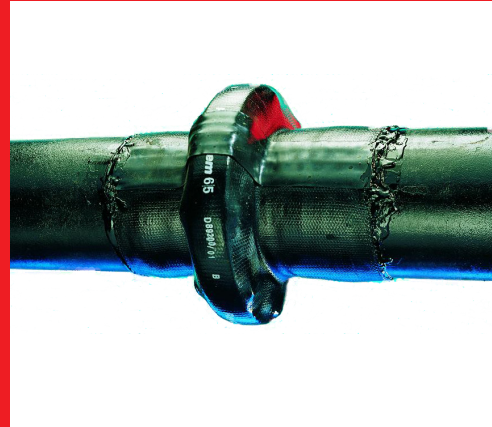


# FCWS-F Flangeseal (US)

Heat shrinkable corrosion protection sleeve specifically developed for installation on flanges or mechanical couplings that are already in place.



Market	Application	Temperature Range	Performance
Oil and Gas Pipelines Pipeline Rehabilitation Offshore Pipelines	Mechanical and flange couplers.	up to 30°C (86°F)	EN12068

## System Description

**FCWS-F/Flangeseal (US) flange/ pipe sealing and protection.**

**Construction:**

Two-layer system

**First layer:**

Visco-elastic sealant.

**Second layer:**

Fiberglass reinforced, radiation cross-linked, polyethylene backing.

The FCWS-F/Flangeseal (US) - is a wrap-around heat-shrinkable sleeve, with a specially designed zipper closing system, allowing a fast and simple installation. The fiberglass-reinforced woven backing gives the FCWS-F/Flangeseal (US) a high mechanical resistance as well as a high recovery capacity. In addition to the sleeve, a cardboard sheet is supplied to keep the flange nuts & bolts clean, allowing easy re-entry and disassembly when necessary. FCWS-F/Flangeseal (US) is installed using standard gas torches. The installation is

carried out directly on the cleaned and prepared pipe surface and flange. After preheating, the corrugated cardboard sheet is wrapped around the flange to be sealed. The heat-shrinkable sleeve is positioned centrally over the flange and closed, using the zipper closure. When heated above 125°C (257°F), the sleeve shrinks tightly around the substrate. During recovery, the adhesive softens and flows to form a tight bond. The bond strength builds up during cool down and is fully retained after completion of the job.

## Product Advantages

- **Backing with integrated fiberglass reinforcement**  
Tough and long lasting.  
Provides a high recovery capacity.
- **65% shrinkage ratio – conforms to high transitions**  
Reduces inventory & logistics costs. Saves money
- **High mechanical resistance backing**  
Resists abrasion, impact and penetration.
- **No primer required**  
No drying time and easy application.
- **Specially formulated sealant**  
Ensures a strong bond & tight seal to virtually any substrate.  
Maintains its elasticity and sealing characteristics over a wide temperature range.
- **Sealing adhesive automatically flows and repairs minor mechanical damages**  
"Self-healing effect." Saves money.
- **Low preheat sensitivity & proven functionality**  
Faster application, this saving time.
- **Zipper closure system**  
Simple & fast installation.
- **No special equipment required**  
Makes installation fast and easy.  
Keeps installation costs low.

## Product Selection Guide

- **Max operating temperature:**  
30°C (86°F)
- **Compatible line coatings**  
PE, PP, FBE, Coal Tar, Tape, Asphalt & Plastics
- **Min preheat temperature**  
60°C (140°F)
- **Recommended pipe preparation**  
ST3

## Product Construction

	FCWS-F / Flangeseal (US)
• Backing (as supplied)	1.30 mm (0.051")
• Backing (fully free recovered)	3.25 mm (0.128")
• Adhesive (as supplied)	1.20 mm (0.047")

## Product Properties

Properties	Test Method	Typical Value
<b>Backing</b>		
Bursting strength	DIN 30672	3500 N
<b>Adhesive</b>		
Softening point	ASTM E-28	92°C (198°F)
Shear strength	EN12068 @ 10 mm (0.4") /min.	8 N/cm <sup>2</sup>
<b>Sleeve</b>		
Peel strength	EN12068 @ 10 mm (0.4")/min.	9 N/cm

## Ordering Information

FCWS-F/Flangeseal (US) type products are available as a kit containing:

- a sleeve (pre-cut sleeve with zipper closure)
- a corrugated cardboard sheet

### FCWS - F - DN 65 - 300

Sleeve width	300 mm (12")
Pipe diameter	DN50, DN65, DN80, DN100, DN125, DN150 (2.375", 2.875", 3.500", 4.500", 5.563", 6.625")

### FS5563 - 24 (US only)

Sleeve width	24" (600 mm)
Pipe diameter	See application table

Max flange Ø (mm)	Min. Pipe Ø (mm)	FCWS-F	Flangeseal (US only)
141 (5.560")	73 (2.87")		FS5563-24
168 (6.620")	89 (3.50")		FS6625-24
170 (6.690")	60 (2.36")	FCWS-F-DN50-300	
185 (7.280")	76 (3.0")	FCWS-F-DN65-300	
200 (7.870")	89 (3.50")	FCWS-F-DN80-300	
219 (8.625")	102 (4.0")		FS8625-24
230 (9.060")	114 (4.50")	FCWS-F-DN100-300	FS10750-24
250 (9.840")	140 (5.50")	FCWS-F-DN125-300	FS10750-24
285 (11.22")	168 (6.62")	FCWS-F-DN150-300	FS12750-24
355 (14.00")	168 (6.62")	*see FCWS or TISW-F	FS14000-24

Bigger sizes available, up to 48000