

## Applications

For use in pressurized large sized pipe systems with requirements for small reaction forces, providing high reliability and long life. These expansion joints are suitable for large extension in axial, lateral or angular directions and they are used particularly in cooling water systems at power plants, in condensers, in gas and drinking water supply lines for pumps, turbines and boilers. They compensate for thermal elongation, correct misalignment, isolate vibrations, dampen noise and absorb pressure surges.

## Design

A custom manufactured rubber bellows with full-face rubber flanges.

Designed for working pressures 6-10 bar and vacuum 0.8 to 1.0 bar as standard. Carbon steel vacuum rings embedded within the rubber (never in contact with the fluid) are integral to the design. Other working pressures and/or vacuum ratings on request. Integrated painted steel flanges as standard. Build length 350/450 mm. Other lengths on request.

# Teguflex® FFI

## Expansion Joints

DN 1100-DN 3200



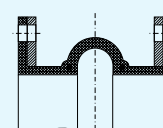
## Materials

Colour Label	Inner tube	Outer cover	Max temp. °C	Applications
Red	EPDM	EPDM	90°	Hot water, cooling water with salt solutions, chlorine solutions, esters and ketones.
Yellow	Nitrile	Chloroprene	90°	Water, salt solutions, alkalis, mineral oils, vegetable or animal oils, aerosols, butane or propane gas, etc.
Green	Hypalon	Chloroprene	90°	Strong and/or concentrated acids, etc. Compressed air that bears oil aerosols.
White	Nitrile white	Chloroprene	90°	Drinking water, food and beverages. Including fats and oils.

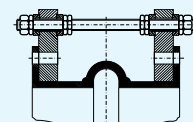
**Note:** Other materials available. Please ask.

## Pressure rating

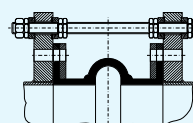
Pressure	Temperature	PN6	PN10
Max. working pressure	70°C 90°C	6 bar 5 bar	10 bar 8 bar
Test pressure	20°C	9 bar	15 bar
Burst pressure	20°C	>20 bar	>25 bar



**Type U**  
Standard unit for axial, lateral and angular movements.



**Style A**



**Style B**

**Type L**  
Unit with tie bars for lateral movements.

# Teguflex FFI DN 1100-DN 3200

## Flange qualities

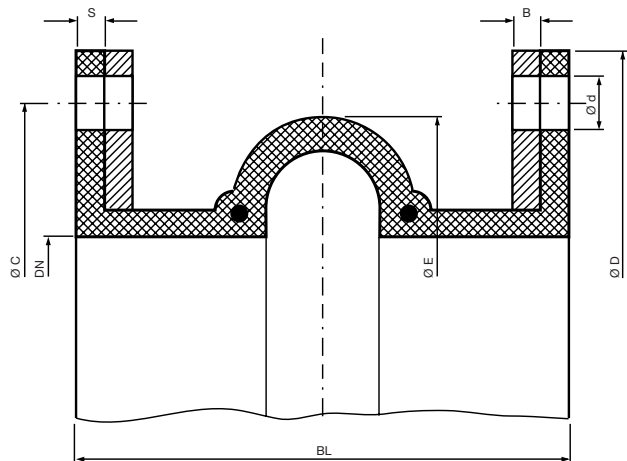
Painted steel flanges as standard. Other surface treatments also available. Please ask!

## Flange measurements

DN 1100-DN 3200 DIN 2501 PN 6/10

(see Flange dimension table for details)

Other flange standards available. Please ask!



## Dimensions and movements

DN mm	BL mm	Eff.cross-sectional area Q(cm <sup>2</sup> )	(E) mm	(S) mm	Permissible movements				Vacuum bar	Weight Incl. flange kg	Spring rate		
					Compression mm	Elongation mm	Lateral mm	Angular			Compression Stiffness kg/cm	Elongation Stiffness kg/cm	Lateral Stiffness kg/cm
1100	350	11700	1260	20	35	30	20	3°	0.9	187	950	1230	1430
1200	350	13700	1360	20	35	30	20	3°	0.9	210	1015	1320	1545
1300	350	15800	1460	20	35	30	20	2.5°	0.9	245	1100	1430	1660
1400	350	18000	1570	25	35	30	20	2.5°	0.9	275	1145	1490	1720
1500	350	20600	1670	25	35	30	20	2°	0.8	302	1270	1655	1895
1600	350	23200	1760	20	35	30	20	2°	0.8	367	1400	1820	2045
1800	350	28400	1860	20	35	30	20	2°	0.8	424	1525	1985	2190
2000	350	35300	2170	20	35	30	20	1.5°	0.8	495	1650	2150	2320
2200	350	42250	2360	20	35	30	20	1.5°	0.8	585	1780	2315	2570
2400	350	49850	2570	25	35	30	20	1.5°	0.8	714	2035	2645	2950
2500	350	53900	2670	25	35	30	20	1°	0.8	800	2080	2700	2960
2600	350	58000	2770	25	35	30	20	1°	0.8	830	2160	2810	3140
2800	350	66900	2970	25	35	30	20	1°	0.8	872	2290	2975	3330
3000	350	76400	3190	35	35	30	20	1°	0.8	960	2540	3305	3710
3200	350	86500	3390	35	35	30	20	1°	0.8	1200	2795	3640	4095

**Note:** Maximum values do not apply simultaneously.  
Other dimensions on request.

