

Expansion Joints in EPDM, NBR, FKM, CSM & FDA

Here is a summary of our rubber compensators. In addition to the different types of rubber can we also offer with steel cord or Kevlar reinforcement for high temperatures. On the left, the most common types are shown with a brief description of the area of use. Standard length is 130 mm.

To the right are special lengths and accessories for vacuum or high pressures. There is also a type with threads. The double-bellow is very effective when it comes to removing vibrations and structural noise.

In addition, it manages very large movements.



NBR, Nitrile rubber
For contact with oil or grease.
Max temp. 90 °C



EPDM with union-couplings
With female thread. Available with couplings in malleable or stainless steel.
Opt. rubber possible ex stock

White NBR, Nitrile rubber.
For food and potable water
Max temp. 90 °C



EPDM, EtenPropen-rubber
For water, hot water, diluted acids, lyes, esters and ketones.
Max temp. 100 °C



Extra short, 100 mm
With threaded holes
Other measurements optional



Extra long, 150 mm, 160 mm or even longer

FKM, "Viton"-rubber
For konc. Acids and hot oil etc. Max temp. 90 °C



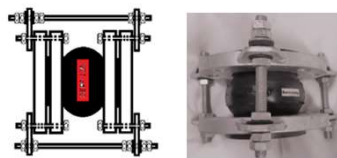
With SAE-flanges for hydraulic applications



With double bellows for large movements and noise insulation



CSM, Hypalon-rubber
For acids. Max temp 90 °C
NO stock in Sweden, often replaced by Viton



Control units restrict the movement of the exp. joint.
Left pic: For retrofitting
Right pic: Fixed assembly.

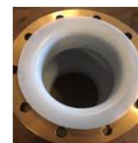


För marine use and Extremely high pressure. Standard approved. Also in straight version

SBR, StyrenButadiene-rubber
For abrasive media
Max. temp. 90 °C
NO stock item in Sweden, often replaced with Viton



PTFE-lining.
For aggressive media



Vacuumring prevents collapsing at large suction. Also available in PTFE

EXPANSION JOINTS WITH FLANGES

The expansion joints are used when there are problems with noise associated with pumps and valves, to compensate movements and facilitate assembly.

Our standard compensators handle the most common media and are available from stock.

We offer other rubber qualities, flange standards- and materials with short lead time.



EXPANSION JOINTS WITH FLANGES – Material Guide



In general, the operating temperature of Nitrile (NBR) and Hypalon is recommended (CSM) to a maximum of 90 °C, EPDM to 100 °C and FKM / “Viton” when it is even warmer. Remember that the specified maximum pressure applies at room temperature and does not apply at the maximum temperature. Feel free to ask in case of doubt both in terms of maximum pressure and choice of rubber quality!

Compensators with Nitrile Rubber, (NBR), are used when you have oils and fats, and for wastewater. Article no. **GNIF-XXX**

White Nitrile NBR is used for potable water and food contact. Art. **GNVF-XXX**

For contact with hot water and diluted acids / lyes etc. is EPDM the best option.

Art. **GEPF-XXX**. EPDM is also ageing resistant against UV-light, (sun- & fluorescent light)

In cases where you have really demanding media and higher temperature do we recommend Viton compensators. Viton is a fluorine rubber (FKM) that can handle most things like very hot oil e.g. Art. **GVIF-XXX**.

All items above are stock items (xxx stands for dimension in mm)

For strong and concentrated acids that Viton can not handle, you can usually use Hypalon (CSM) instead. Artikel **GHYF-XXX**

Technical data – Exp. joints in Nitrile (NBR)



Art.Code	RSK-No	Size (mm/inch)	Tot. Length (mm)	Max. movement (mm)			Bellow PN Bar	Flanges PN Bar	Weight kg
Artikel- nummer	RSK- nummer	Storlek Diameter (mm/tum)	Bygg- längd (mm)	Rörelseupptagning			Bälg PN Bar	Flänsar PN Bar	Vikt kg
				Axiell (mm)	Lateral (mm)	Vinkel (grader)			
GNIF025		25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GNIF032	1510220	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GNIF040	1510221	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GNIF050	1510222	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GNIF065	1510223	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GNIF080	1510224	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GNIF100	1510225	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GNIF125	1510226	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GNIF150	1510227	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GNIF200.10	1510228	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GNIF200.16	1510229	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GNIF250.10	1510230	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GNIF250.16	1510231	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GNIF300.10	1510232	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GNIF300.16	1510233	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33
GNIF350.10	1510234	350/ 14"	203	+16/ -28	+/- 25	15	10	10	37
GNIF350.16		350/ 14"	203	+16/ -28	+/- 25	15	10	16	44
GNIF400.10	1510235	400/ 16"	203	+16/ -28	+/- 25	15	10	10	47
GNIF400.16	1510236	400/ 16"	203	+16/ -28	+/- 25	15	10	16	53
GNIF500.10	1510237	500/ 20"	203	+16/ -28	+/- 25	10	10	10	62
GNIF500.16	1510238	500/ 20"	203	+16/ -28	+/- 25	10	10	16	88
GNIF600.10	1510239	600/ 24"	270	+16/ -28	+/- 25	10	10	10	87
GNIF600.16		600/ 24"	270	+16/ -28	+/- 25	10	10	16	115

Our nitrile exp. joints are equipped with electrically galvanized flanges, class C4 as standard.
Other types and materials are optional

Technical Data – Exp. joints in white NBR



Art-code	Size Diameter (mm / inch)	Total-length (mm)	Max. movement			Bellow PN Bar	Flanges PN Bar	Weight kg
			Axiell (mm)	Lateral (mm)	Angle (Degrees)			
GNVF025	25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GNVF032	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GNVF040	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GNVF050	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GNVF065	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GNVF080	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GNVF100	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GNVF125	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GNVF150	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GNVF200.10	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GNVF200.16	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GNVF250.10	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GNVF250.16	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GNVF300.10	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GNVF300.16	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33

Our food exp. joints are equipped with electrically galvanized flanges, class C4 as standard.
Other flanges are optional

Technical data – Exp. joints in EPDM



Max. working temp: 100 °C,
Peak temperature: 115 °C

Areas of use

Universal: diluted acids & lyes, esters, ketones,
salt water, hot water, cooling water without
petroleum-based additives, sewer cleaning.
Good resistance to UV-light and ozone

Art.Code	RSK-No	Size (mm/inch)	Tot. Length (mm)	Max. movement (mm)			Bellow PN Bar	Flanges PN Bar	Weight kg
				Axial	Lateral	Angle °			
Artikel-nummer	RSK-nummer	Storlek Diameter (mm/tum)	Bygg-längd (mm)	Rörelseupptagning Axiell Lateral Vinkel (mm) (mm) (grader)			Bälg PN Bar	Flänsar PN Bar	Vikt kg
GEPF025		25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GEPF032	1510201	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GEPF040	1510202	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GEPF050	1510203	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GEPF065	1510204	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GEPF080	1510205	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GEPF100	1510206	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GEPF125	1510207	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GEPF150	1510208	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GEPF200.10	1510209	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GEPF200.16	1510210	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GEPF250.10	1510211	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GEPF250.16	1510212	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GEPF300.10	1510213	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GEPF300.16	1510214	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33
GEPF350.10	1510215	350/ 14"	203	+16/ -28	+/- 25	15	10	10	37
GEPF350.16		350/ 14"	203	+16/ -28	+/- 25	15	10	16	44
GEPF400.10	1510216	400/ 16"	203	+16/ -28	+/- 25	15	10	10	47
GEPF400.16		400/ 16"	203	+16/ -28	+/- 25	15	10	16	53
GEPF500.10	1510217	500/ 20"	203	+16/ -28	+/- 25	10	10	10	62
GEPF500.16		500/ 20"	203	+16/ -28	+/- 25	10	10	16	88
GEPF600.10	1510218	600/ 24"	270	+16/ -28	+/- 25	10	10	10	87
GEPF600.16		600/ 24"	270	+16/ -28	+/- 25	10	10	16	115

Our exp. joints are equipped with electrically galvanized flanges, class C4 as standard. Other flanges optional

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Technical data – Exp. joints in EPDM, L=150 mm



Article-code	Size Diameter (mm/tum)	Total Length (mm)	Max. movement			Bellow Flanges		Weight kg
			Axial (mm)	Lateral (mm)	Angle (°)	PN Bar	PN Bar	
GEPF025/L=150	25/ 1"	150	+11/ -11	+/- 13	15	16	10/ 16	1,7
GEPF032/L=150	32/ 1 1/4"	150	+11/ -11	+/- 13	15	16	10/ 16	2,3
GEPF040/L=150	40/ 1 1/2"	150	+11/ -11	+/- 13	15	16	10/ 16	2,7
GEPF050/L=150	50/ 2"	150	+11/ -11	+/- 13	15	16	10/ 16	4,1
GEPF065/L=150	65/ 2 1/2"	150	+11/ -11	+/- 13	15	16	10/ 16	5,6
GEPF080/L=150	80/ 3"	150	+11/ -11	+/- 13	15	16	10/ 16	6,4
GEPF100/L=150	100/ 4"	150	+15/ -17	+/- 13	15	16	10/ 16	8,3
GEPF125/L=150	125/ 5"	150	+15/ -17	+/- 13	15	16	10/ 16	10,4
GEPF150/L=150	150/ 6"	150	+15/ -17	+/- 13	15	16	10/ 16	12,2
GEPF200.10/L=150	200/ 8"	150	+15/ -17	+/- 13	15	16	10	18,5
GEPF200.16/L=150	200/ 8"	150	+15/ -17	+/- 13	15	16	16	18,5

Our expansion joints are equipped with electrically galvanized flanges, class C4 as standard. Other flanges are optional

**150 mm EPDM-joints are not stock item.
Approximately 1-2 weeks delivery time**

Technical data – Exp. Joints in EPDM with stainless flanges



Article-Code	Size Diameter (mm/inch)	Total length (mm)	Max. movement			Bellow PN Bar	Flange PN Bar	Weight kg
			Axial (mm)	Lateral (mm)	Angle (degr.)			
GEPF025SS	25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GEPF032SS	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GEPF040SS	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GEPF050SS	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GEPF065SS	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GEPF080SS	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GEPF100SS	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GEPF125SS	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GEPF150SS	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GEPF200.10SS	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GEPF200.16SS	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GEPF250.10SS	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GEPF250.16SS	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GEPF300.10SS	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GEPF300.16SS	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33
GEPF350.10SS	350/ 14"	203	+16/ -28	+/- 25	15	10	10	37
GEPF350.16SS	350/ 14"	203	+16/ -28	+/- 25	15	10	16	44
GEPF400.10SS	400/ 16"	203	+16/ -28	+/- 25	15	10	10	47
GEPF400.16SS	400/ 16"	203	+16/ -28	+/- 25	15	10	16	53
GEPF500.10SS	500/ 20"	203	+16/ -28	+/- 25	10	10	10	62
GEPF500.16SS	500/ 20"	203	+16/ -28	+/- 25	10	10	16	88
GEPF600.10SS	600/ 24"	270	+16/ -28	+/- 25	10	10	10	87
GEPF600.16SS	600/ 24"	270	+16/ -28	+/- 25	10	10	16	115

Our expansion joints in EPDM can be supplied with stainless flanges
EN 1.4301, AISI 304 or EN 1.4401, AISI 316

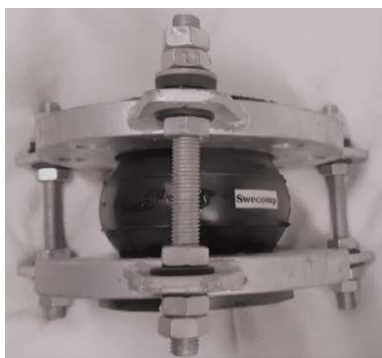
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Technical data – Expansion joints in EPDM with fixed control units



Article-code	Size Diameter (mm/inch)	Total Length (mm)	Max. movement			Bellow PN Bar	Flange PN Bar	Weight kg	Note
			Axiell (mm)	Lateral (mm)	Angle (degr.)				
GEPP025LBG	25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	3,50	*
GEPP032LBG	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	4,15	*
GEPP040LBG	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,60	*
GEPP050LBG	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,60	*
GEPP065LBG	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	6,35	**
GEPP080LBG	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	8,00	
GEPP100LBG	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	8,60	
GEPP125LBG	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	11,55	
GEPP150LBG	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	14,60	
GEPP200.10LBG	200/ 8"	130	+10/ -12	+/- 12	15	16	10	20,05	
GEPP200.16LBG	200/ 8"	130	+10/ -12	+/- 12	15	16	16	20,05	
GEPP250.10LBG	250/ 10"	130	+10/ -12	+/- 12	15	16	10	25,10	
GEPP250.16LBG	250/ 10"	130	+10/ -12	+/- 12	15	16	16	27,10	
GEPP300.10LBG	300/ 12"	130	+10/ -12	+/- 12	15	16	10	31,10	
GEPP300.16LBG	300/ 12"	130	+10/ -12	+/- 12	15	16	16	35,10	
GEPP350.10LBG	350/ 14"	203	+16/ -28	+/- 25	15	10	10	39,50	**
GEPP350.16LBG	350/ 14"	203	+16/ -28	+/- 25	15	10	16	46,50	**
GEPP400.10LBG	400/ 16"	203	+16/ -28	+/- 25	15	10	10	49,50	**
GEPP400.16LBG	400/ 16"	203	+16/ -28	+/- 25	15	10	16	55,50	**
GEPP500.10LBG	500/ 20"	203	+16/ -28	+/- 25	10	10	10	65,00	**
GEPP500.16LBG	500/ 20"	203	+16/ -28	+/- 25	10	10	16	91,00	**
GEPP600.10LBG	600/ 24"	270	+16/ -28	+/- 25	10	10	10	90,50	**
GEPP600.16LBG	600/ 24"	270	+16/ -28	+/- 25	10	10	16	118,50	**

Our exp-joints in EPDM with fixed control units are normally equipped with electrically galvanized flanges.

*) No stock item and NOT recommended

***) No stock item. Approx. 1 week delivery time

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Technical data – Exp. joint in FKM "Viton" (Hi-temp, oil etc)



Article-code	Size Diameter (mm/inch)	Total length (mm)	Max. movement			Bellow PN Bar	Flanges PN Bar	Weight Kg
			Axial (mm)	Lateral (mm)	Angle (degr.)			
GVIF025	25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GVIF032	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GVIF040	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GVIF050	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GVIF065	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GVIF080	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GVIF100	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GVIF125	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GVIF150	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GVIF200.10	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GVIF200.16	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GVIF250.10	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GVIF250.16	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GVIF300.10	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GVIF300.16	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33

Our Exp.joints in FKM / viton are normally equipped with electrically galvanized flanges, Class C4 as standard. Other flanges are optional

Table of resistance and accessories

Media / Property		Rubber type		Media / Property		Rubber type		Media / Property		Rubber type		Remark
		EPDM	NBR			EPDM	NBR			EPDM	NBR	
Abrasion resistance		B	B	Ethyldiglycol		A	A	Naphta		D	A	
Cold resistance		B	B	Ethylene		A	C	Natriumchloride, filled		B	B	
Heat resistance		A	B	Ethyleneglycol		A	A	Oxygen		A	C	
Alcohol		A	B	Fat, Grease		D	A	Ozone		A	D	
Aluminumchloride		A	A	Glycerine, Glycol		A	A	Petroleum		D	A	
Asphalt		D	B	Isopropylene		D	A	Propane		D	A	
Benzine, super		D	A	Isopropylalcohol		A	B	Propanol, propyleneglycol		A	B	
Bensyl-alcohol		A	D	Kerosene		D	B	Raw / crude oil, aromatic		D	A	
Borax		B	A	Hot air max 70 °C		A	C	Silicone grease and -oils		A	C	
Buthanole, Butylalcohol		B	A	Hot air max 100 °C		A	D	Water, hot		A	D	
Buthyleneglycol		A	A	Light benzine		D	A	Water, industry		A	C	
Diesel oil		D	A	Methanol		A	C	Water, potable		--	A	white NBR
Diethyleneglycol		A	A	Methylenglycol		A	A					
Ethanol		A	C	Mineral oil		D	A					

A=Recommended

B=Recommended with minor limitations

C=Recommended with larger limitations

D=Not suitable

The information is based on experience and trials. No obligations or warrantys are given. Always make own trials or ask us when in doubt.

Our standard expansion joints type
GNIF and GEPF are designed to cope
long service life and all dimensions
even DN 300 are of course rated PN 16.

GNIF is made up of NBR rubber in the inner layer
and neoprene in the outer layer with nylon reinforcement.

GEPF has EPDM in all layers and nylon reinforcement.

GNVF has white nitrile in the inner layer and neoprene in the outer
layer. GVIF has an inner layer of Viton

Flanges: Standard stock expansion joints are equipped with flanges
according to PN10 or PN 16 and in hot-dip galvanized or
galvanized version.

We offer PN 6, PN25 ANSI flanges etc. for produced on
request with short lead time. We can also supply stainless steel 304
or 316 flanges quickly as well.

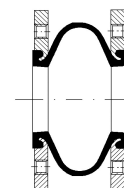
Optional: Length limiters, which can be retrofitted.

Vacuum support in acid-proof design used
when greater negative pressure occurs.

Other info: Compensators with threaded
connections, type GEPU with hot-dip galvanized
couplings or stainless steel couplings are in stock.

Shorter construction length, (ex 100) is in stock in Germany

Longer, eg type GDEPF is in our warehouse.



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Eori-No. SE5569646473
BG Nr. 5021-7512

Expansion Joints in Hypalon with flanges

The expansion joints are used when there are problems with noise associated with pumps and valves, to compensate movements and facilitate assembly.

The CSM – Hypalon is suitable for concentrated acids with exception for nitric- and sulfuric acid.

We offer other flange standards and –materials from stock.



Technical data – Exp. joints in Hypalon



Article- Number	Size Diameter (mm/inch)	Total length (mm)	Max. movement			Bellow PN Bar	Flange PN Bar	Weight kg
			Axial (mm)	Lateral (mm)	Angle (degr.)			
GHYF025	25/ 1"	130	+10/ -12	+/- 12	15	16	10/ 16	2,5
GHYF032	32/ 1 1/4"	130	+10/ -12	+/- 12	15	16	10/ 16	3,1
GHYF040	40/ 1 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	3,5
GHYF050	50/ 2"	130	+10/ -12	+/- 12	15	16	10/ 16	4,5
GHYF065	65/ 2 1/2"	130	+10/ -12	+/- 12	15	16	10/ 16	5,2
GHYF080	80/ 3"	130	+10/ -12	+/- 12	15	16	10/ 16	6,8
GHYF100	100/ 4"	130	+10/ -12	+/- 12	15	16	10/ 16	7,4
GHYF125	125/ 5"	130	+10/ -12	+/- 12	15	16	10/ 16	10,3
GHYF150	150/ 6"	130	+10/ -12	+/- 12	15	16	10/ 16	13,2
GHYF200.10	200/ 8"	130	+10/ -12	+/- 12	15	16	10	18
GHYF200.16	200/ 8"	130	+10/ -12	+/- 12	15	16	16	18
GHYF250.10	250/ 10"	130	+10/ -12	+/- 12	15	16	10	23
GHYF250.16	250/ 10"	130	+10/ -12	+/- 12	15	16	16	25
GHYF300.10	300/ 12"	130	+10/ -12	+/- 12	15	16	10	29
GHYF300.16	300/ 12"	130	+10/ -12	+/- 12	15	16	16	33
GHYF350.10	350/ 14"	203	+16/ -28	+/- 25	15	10	10	37
GHYF350.16	350/ 14"	203	+16/ -28	+/- 25	15	10	16	44
GHYF400.10	400/ 16"	203	+16/ -28	+/- 25	15	10	10	47
GHYF400.16	400/ 16"	203	+16/ -28	+/- 25	15	10	16	53
GHYF500.10	500/ 20"	203	+16/ -28	+/- 25	10	10	10	62
GHYF500.16	500/ 20"	203	+16/ -28	+/- 25	10	10	16	88
GHYF600.10	600/ 24"	270	+16/ -28	+/- 25	10	10	10	87
GHYF600.16	600/ 24"	270	+16/ -28	+/- 25	10	10	16	115

Our Hypalon-exp. joints are supplied with electrically galvanized flanges as standard.
Stainless flanges in AISI 304 or 316 are optional.

Table of resistance and accessories

Media / Property	Rubber type			Media / Property	Rubber type			Media / Property	Rubber type			Remark
	EPDM	NBR	CSM-Hypalon		EPDM	NBR	CSM-Hypalon		EPDM	NBR	CSM	
Abrasion resistance	B	B		Ethylidiglycol	A	A	C	Naphta	D	A	C	
Cold resistance	B	B	B	Ethylene	A	C	C	Natriumchloride, filled	B	B	A	
Heat resistance	A	B	B	Ethyleneglycol	A	A	A	Oxygen	A	C	B	
Alcohol	A	B	A	Fat, Grease	D	A	C	Ozone	A	D	D	
Aluminumchloride	A	A	A	Glycerine, Glycol	A	A	A	Petroleum	D	A	D	
Asphalt	D	B	D	Isopropylene	D	A	D	Propane	D	A	B	
Benzine, super	D	A	D	Isopropylalcohol	A	B	A	Propanol, propyleneglycol	A	B	A	
Bensyl-alcohol	A	D	D	Kerosene	D	B	D	Raw / crude oil, aromatic	D	A	D	
Borax	B	A	A	Hot air max 70 °C	A	C	A	Silicone grease and -oils	A	C	B	
Buthanole,				Hot air max 100 °C	A	D	C	Water, hot	A	D	B	
Butylalcohol	B	A	A	Light benzine	D	A	C	Water, industry	A	C	B	
Buthyleneglycol	A	A	C	Methanol	A	C	A	Water, potable	--	A*	---	*) white NBR
Diesel oil	D	A	C	Methylenglycol	A	A	C					
Diethyleneglycol	A	A	A	Mineral oil	D	A	C					
Ethanol	A	C	A									

A=Recommended

B=Recommended with minor limitations

C=Recommended with larger limitations

D=Not suitable

The information is based on experience and trials. No obligations or warranties are given. Always make own trials or ask us when in doubt.

Our expansion joints in CSM-Hypalon typ

GHYF are designed to withstand a long service life and all dimensions up to and including DN 300 are rated PN 16.

They are made of Hypalon rubber in the inner layer and Neoprene in the outer layer with nylon reinforcement.

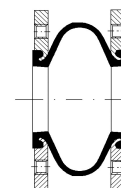
Flanges: Normally the compensators have flanges according to PN10 or PN 16.

We also supply PN 6, PN25 ANSI flanges etc. on request with short lead time. We also offer stainless steel (AISI 304 or 316) flanges from stock.

Optional for retrofit: Length limiters, stainless vacuum support when greater negative pressure occurs.

Other info: Flanged compensators NBR and EPDM type GNIF and GEPF and threaded connections, type GEPU with hot-dip galvanized connector couplings or stainless steel couplings are in stock. We also have Viton type GVIF, for high temperatures and demanding media.

Shorter construction length, (ex 100) and longer on request.



Expansion Joints with flanges – COMPACT type

The expansion joints are used when there are problems with noise associated with pumps and valves, to compensate for movements and facilitate assembly. The compact model has great movement and removes vibrations extra well.

Our Compact Compensators handle the most common media and is available as standard with EPDM or Nitrile rubber. Other rubber qualities, flange standards and flange materials are produced on inquiry.



Expansion Joints COMPACT, with flanges – Material guide



In general, Nitrile and Hypalon is recommended up to a maximum of 90 °C, EPDM to 100 ° C, and Viton when it is even warmer.

Remember that the specified max. pressure applies at room temperature and doesn't apply at max. temperature. Feel free to ask in case of doubt both in terms of max. pressure and choice of rubber quality!

Compensators with Nitrile Rubber, (NBR), are used when oils, fats or grease occur. For instance in sewer treatment or petrochemical industry.

Article **GNIFXXX/L=100**

For applications with hot water and diluted chemicals is EPDM the best option.

Article **GEPF-XXX/L=100**. EPDM is also resistant to UV-light and ozone from sun light, Outdoor use and fluorescent lamps.

In case of very aggressive media or higher temperatures do we recommend Our expansion joints in FKM/Viton. It's also resistant to warm oil products.

Article **GVIF-XXX/L=100**. (xxx = dimension in mm)

Technical Data – Expansion joint Nitrile (NBR) Compact



Article-number	Size Diameter (mm/inch)	Total length (mm)	Maximal movement			Bellow PN Bar	Flanges PN Bar	Drilled holes Thread Size
			Axial (mm)	Lateral (mm)	Angle (degrees)			
GNIF025/L=100	25/ 1"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF032/L=100	32/ 1 1/4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF040/L=100	40/ 1 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF050/L=100	50/ 2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF065/L=100	65/ 2 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF080/L=100	80/ 3"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF100/L=100	100/ 4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF125/L=100	125/ 5"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GNIF150/L=100	150/ 6"	100	+/-25	+/- 15	7.5	16	10/ 16	M20
GNIF200.10/L=100	200/ 8"	100	+/-25	+/- 15	5	16	10	M20
GNIF200.16/L=100	200/ 8"	100	+/-25	+/- 15	5	16	16	M20
GNIF250.10/L=100	250/ 10"	100	+/-25	+/- 15	5	16	10	M20
GNIF250.16/L=100	250/ 10"	100	+/-25	+/- 15	5	16	16	M20
GNIF300.10/L=100	300/ 12"	100	+/-25	+/- 15	5	16	10	M20
GNIF300.16/L=100	300/ 12"	100	+/-25	+/- 15	5	16	16	M20

Our compact expansion joints in NBR-Nitrile are equipped as standard with electrically galvanized flanges

Other surface treatment or material is offered against order with fast delivery.

The expansion joints are to be assembled from the opposite flange side and it's not allowed to have any bolts against the bellow.

The length of the bolts must be adjusted so that they don't protrude inside of the flange which might damage the bellow.

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Technical Data – Expansion joint EPDM Compact



Article-code	Size Diameter (mm/inch)	Total length (mm)	Maximal movement			Bellow PN Bar	Flanges PN Bar	Drilled holes Thread Size
			Axial (mm)	Lateral (mm)	Angle (degrees)			
GEPF025/L=100	25/ 1"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF032/L=100	32/ 1 1/4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF040/L=100	40/ 1 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF050/L=100	50/ 2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF065/L=100	65/ 2 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF080/L=100	80/ 3"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF100/L=100	100/ 4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF125/L=100	125/ 5"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GEPF150/L=100	150/ 6"	100	+/-25	+/- 15	7.5	16	10/ 16	M20
GEPF200.10/L=100	200/ 8"	100	+/-25	+/- 15	5	16	10	M20
GEPF200.16/L=100	200/ 8"	100	+/-25	+/- 15	5	16	16	M20
GEPF250.10/L=100	250/ 10"	100	+/-25	+/- 15	5	16	10	M20
GEPF250.16/L=100	250/ 10"	100	+/-25	+/- 15	5	16	16	M20
GEPF300.10/L=100	300/ 12"	100	+/-25	+/- 15	5	16	10	M20
GEPF300.16/L=100	300/ 12"	100	+/-25	+/- 15	5	16	16	M20

Our compact expansion joints in EPDM are equipped as standard with electrically galvanized flanges

Other surface treatment or material is offered against order with fast delivery.

The expansion joints are to be assembled from the opposite flange side and it's not allowed to have any bolts against the bellow.

The length of the bolts must be adjusted so that they don't protrude inside of the flange which might damage the bellow.

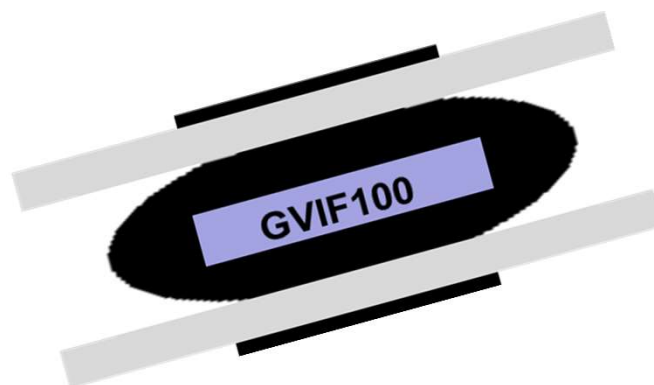
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Technical Data – Expansion joint Viton Compact



Article-code	Size Diameter (mm/inch)	Total length (mm)	Maximal movement			Bellow PN Bar	Flanges PN Bar	Drilled holes Thread Size
			Axial (mm)	Lateral (mm)	Angle (degrees)			
GVIF025/L=100	25/ 1"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF032/L=100	32/ 1 1/4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF040/L=100	40/ 1 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF050/L=100	50/ 2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF065/L=100	65/ 2 1/2"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF080/L=100	80/ 3"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF100/L=100	100/ 4"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF125/L=100	125/ 5"	100	+/-25	+/- 15	7.5	16	10/ 16	M16
GVIF150/L=100	150/ 6"	100	+/-25	+/- 15	7.5	16	10/ 16	M20
GVIF200.10/L=100	200/ 8"	100	+/-25	+/- 15	5	16	10	M20
GVIF200.16/L=100	200/ 8"	100	+/-25	+/- 15	5	16	16	M20
GVIF250.10/L=100	250/ 10"	100	+/-25	+/- 15	5	16	10	M20
GVIF250.16/L=100	250/ 10"	100	+/-25	+/- 15	5	16	16	M20
GVIF300.10/L=100	300/ 12"	100	+/-25	+/- 15	5	16	10	M20
GVIF300.16/L=100	300/ 12"	100	+/-25	+/- 15	5	16	16	M20

Our compact expansion joints in viton are equipped as standard with electrically galvanized flanges

Other surface treatment or material is offered against order with fast delivery.

The expansion joints are to be assembled from the opposite flange side and it's not allowed to have any bolts against the bellow.

The length of the bolts must be adjusted so that they don't protrude inside of the flange which might damage the bellow.

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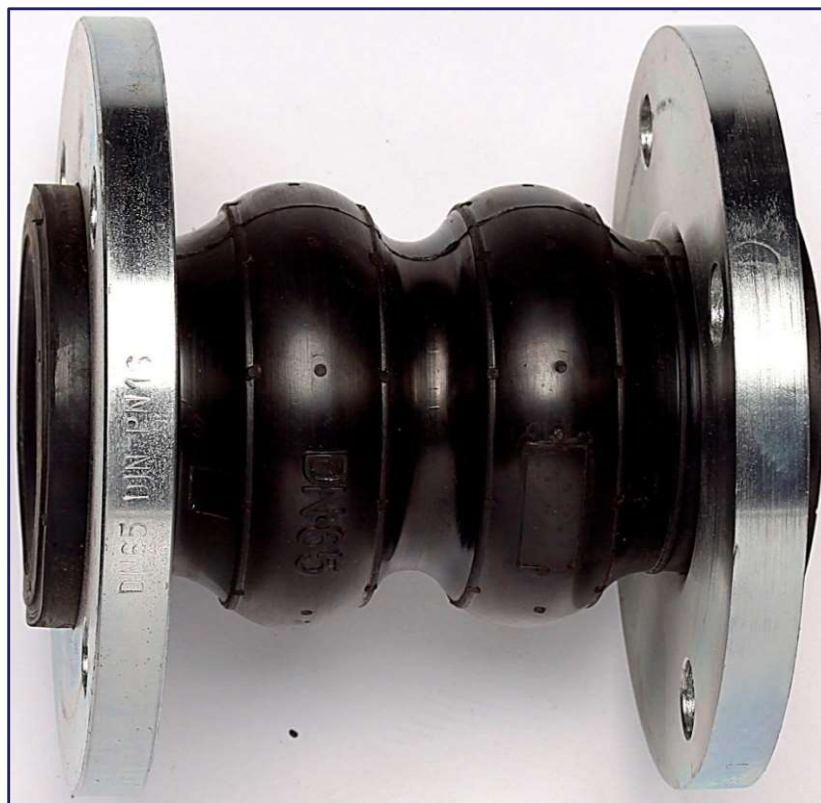
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Expansion Joints with Double Bellow Type: GDEPF

These exp. joints are used in cases with major problems of body noise in connection with pumps and valves, to compensate for large movements, and facilitate assembly. The reduction of vibrations is exceptional.

These expansion joints can handle the most common media. Standard rubber is EPDM, but it can be supplied with Nitrile rubber or Neoprene rubber as well (relatively common)



Technical data Double Bellow Exp. Joint (EPDM)



Article- code	Size	Total length	Total movement			Bellow	Flanges	Weight
	Diameter		Axial	Lateral	Angle	PN	PN	
	(mm/inch)	(mm)	(mm)	(mm)	(degr.)	Bar	Bar	kg
GDEPF032	32/ 1 1/4"	175	+20/ -30	+/- 45	30	16	10/ 16	3,3
GDEPF040	40/ 1 1/2"	175	+20/ -30	+/- 45	30	16	10/ 16	3,8
GDEPF050	50/ 2"	175	+30/ -50	+/- 45	30	16	10/ 16	4,8
GDEPF065	65/ 2 1/2"	175	+30/ -50	+/- 45	30	16	10/ 16	5,8
GDEPF080	80/ 3"	175	+30/ -50	+/- 45	30	16	10/ 16	7,3
GDEPF100	100/ 4"	225	+35/ -50	+/- 40	30	16	10/ 16	8,2
GDEPF125	125/ 5"	225	+35/ -50	+/- 40	30	16	10/ 16	11,2
GDEPF150	150/ 6"	225	+35/ -50	+/- 40	30	16	10/ 16	14,2
GDEPF200.10	200/ 8"	325	+35/ -50	+/- 35	30	16	10	20,5
GDEPF200.16	200/ 8"	325	+35/ -50	+/- 35	30	16	16	20,5
GDEPF250.10	250/ 10"	325	+35/ -50	+/- 35	30	16	10	26
GDEPF250.16	250/ 10"	325	+35/ -50	+/- 35	30	16	16	29
GDEPF300.10	300/ 12"	325	+35/ -50	+/- 35	20	16	10	33
GDEPF300.16	300/ 12"	325	+35/ -50	+/- 35	20	16	16	37
GDEPF350.10	350/ 14"	345	+35/ -50	+/- 30	20	10	10	40
GDEPF350.16	350/ 14"	345	+35/ -50	+/- 30	20	10	16	47
GDEPF400.10	400/ 16"	345	+35/ -50	+/- 30	20	10	10	50
GDEPF400.16	400/ 16"	345	+35/ -50	+/- 30	20	10	16	56
GDEPF500.10	500/ 20"	345	+35/ -50	+/- 30	20	10	10	67
GDEPF500.16	500/ 20"	345	+35/ -50	+/- 30	20	10	16	93

Our double-expansion joints are equipped as standard with electrically galvanized flanges

DN 450 is optional

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Table of resistance and accessories

Media / Property	Rubber type			Media / Property	Rubber type			Media / Property	Rubber type			
	EPDM	NBR	CSM-Hypalon		EPDM	NBR	CSM-Hypalon		EPDM	NBR	CSM	Remark
Abrasion resistance	B	B		Ethyldiglycol	A	A	C	Naphta	D	A	C	
Cold resistance	B	B	B	Ethylene	A	C	C	Natriumchloride, filled	B	B	A	
Heat resistance	A	B	B	Ethyleneglycol	A	A	A	Oxygen	A	C	B	
Alcohol	A	B	A	Fat, Grease	D	A	C	Ozone	A	D	D	
Aluminumchloride	A	A	A	Glycerine, Glycol	A	A	A	Petroleum	D	A	D	
Asphalt	D	B	D	Isopropylene	D	A	D	Propane	D	A	B	
Benzine, super	D	A	D	Isopropylalcohol	A	B	A	Propanol, propyleneglycol	A	B	A	
Bensyl-alcohol	A	D	D	Kerosene	D	B	D	Raw / crude oil, aromatic	D	A	D	
Borax	B	A	A	Hot air max 70 °C	A	C	A	Silicone grease and -oils	A	C	B	
Buthanole, Butylalcohol	B	A	A	Hot air max 100 °C	A	D	C	Water, hot	A	D	B	
Buthyleneglycol	A	A	C	Light benzine	D	A	C	Water, industry	A	C	B	
Diesel oil	D	A	C	Methanol	A	C	A	Water, potable	--	A*	---	*) white NBR
Diethyleneglycol	A	A	A	Methylenglycol	A	A	C					
Ethanol	A	C	A	Mineral oil	D	A	C					

A=Recommended

C=Recommended with larger limitations

B=Recommended with minor limitations

D=Not suitable

The information is based on experience and trials. No obligations or warrantys are given. Always make own trials or ask us when in doubt.

Our double expansion joints GDEPFs are designed to last with a long life time and all dimensions, even DN 300, are of course rated PN 16.

EPDM is used in all layers with nylon reinforcement.

Flanges: Both PN10 and PN 16 are stock items.

We can also supply PN 6, PN25 ANSI flanges etc. quickly.

Stainless flanges (AISI 304 / 316) are also optional quickly

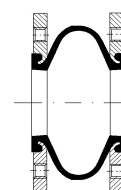
Optional: Length limiter for retrofit assembly.

Vacuum supports in stainless (316) steel used when greater negative pressure occurs.

Other info: Compensators with European standard length, (130 mm up to DN 300), threaded

connections, type GEPU with hot-dip galvanized couplings or stainless steel couplings are in stock.

Shorter construction length, (ex 100) and longer on request.



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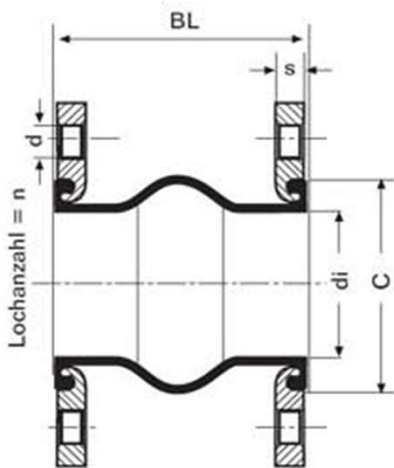
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Expansion Joints with SAE 3000 flanges

WP 10 Bar at 80°C. NBR lining and CR cover. Nylon reinforcement.
Swiveling flanges SAE 3000 el.galvanized steel RSt37-2



Type SAE 3000 Gummikompensator

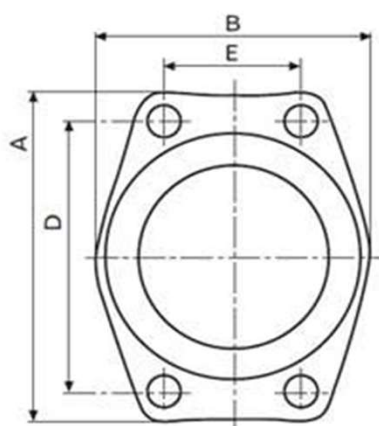
Arbetsstryck 10 Bar vid 80°C
Bälg NBR med Neoprene (CR) utvändigt
Armering av Nyloncord
Vridbara flänsar SAE 3000 elförzinkat stål RSt37-2

Bälg

	DN	Ø di mm	Ø C mm	BL mm	axial mm	lateral mm	angular mm
	25	1"	24	46	65	+10 / -20	+/- 10
	32	1 1/4"	32	53	65	+10 / -20	+/- 10
	40	1 1/2"	40	64	100	+10 / -20	+/- 10
	50	2"	50	73	100	+10 / -20	+/- 10
	65	2 1/2"	65	89	100	+10 / -20	+/- 10
	80	3"	80	102	100	+10 / -20	+/- 10
	80	3 1/2"	80	102	100	+10 / -20	+/- 10
	100	4"	100	130	100	+10 / -20	+/- 10
	125	5"	121	166	130	+10 / -20	+/- 10

Also available with total length 130 mm

Rubber expansion joint Nitrile SAE 3000 flange data



DN	A	B	D	E	s	n x Ø d mm
25 1"	70	55	52,4	26,2	11	4 x 11
32 1 ¼"	80	70	58,7	30,2	11	4 x 13
40 1 ½"	90	80	70,0	35,7	13	4 x 13
50 2"	100	90	77,8	42,9	13	4 x 13
65 2 ½"	115	105	89,0	50,8	14	4 x 13
80 3"	132	120	106,4	62,0	14	4 x 17
80 3 ½"	146	130	120,6	70,0	14	4 x 17
100 4"	156	140	130,2	77,8	16	4 x 17
125 5"	184	165	152,4	92,0	16	4 x 17

Expansion Joints with Couplings

The expansion joints are used when there are problems with noise associated with pumps and valves, to compensate for movements and facilitate assembly. The compact model has great movement and removes vibrations extra well.

Our expansion joints handle the most common media and is available as standard with EPDM or Nitrile rubber. Other rubber qualities, flange standards and - materials can be offered.



Article number and technical data



Article- Number	RSK- number	Size Diameter (mm/inch)	Total- length (mm)	Maximal movement			WP Bar PN	Couplings- material	Weight (kg)
				Axial (mm)	Lateral (mm)	Angle (degrees)			
GEPU015	1510240	15/ 1/2"	200	+6/ -25	+/-23	35	10	HotGalv. aducer	0,4
GEPU020	1510241	20/ 3/4"	200	+6/ -25	+/-23	35	10	HotGalv. aducer	0,6
GEPU025	1510242	25/ 1"	200	+6/ -25	+/-23	30	10	HotGalv. aducer	0,9
GEPU032	1510243	32/ 1 1/4"	200	+6/ -25	+/-23	30	10	HotGalv. aducer	1,3
GEPU040	1510244	40/ 1 1/2"	200	+6/ -25	+/-23	30	10	HotGalv. aducer	1,6
GEPU050	1510245	50/ 2"	200	+6/ -25	+/-23	20	10	HotGalv. aducer	2,7
GEPU065		65/ 2 1/2"	265	+6/ -25	+/-23	15	10	HotGalv. aducer	3,7
GEPU080		80/ 3"	265	+6/ -25	+/-23	15	10	HotGalv. aducer	4,2
GEPU020 SS		20/ 3/4"	200	+6/ -25	+/-23	35	10	Stainless	0,6
GEPU025 SS	1510246	25/ 1"	200	+6/ -25	+/-23	30	10	Stainless	0,9
GEPU032 SS	1510247	32/ 1 1/4"	200	+6/ -25	+/-23	30	10	Stainless	1,3
GEPU040 SS	1510248	40/ 1 1/2"	200	+6/ -25	+/-23	30	10	Stainless	1,6
GEPU050 SS	1510249	50/ 2"	200	+6/ -25	+/-23	20	10	Stainless	2,7
GEPU065 SS		65/ 2 1/2"	265	+6/ -25	+/-23	15	10	Stainless	3,7
GEPU080 SS		80/ 3"	265	+6/ -25	+/-23	15	10	Stainless	4,2

GEPU=Rubber exp.joint, EPDM, Union coupling, Hot galv. Aducer iron

GEPU.SS=Rubber exp.joint, EPDM, Union coupling, Stainless steel

Table of resistance and accessories

Media / Property	Rubber type		Media / Property	Rubber type		Media / Property	Rubber type		Remark
	EPDM	NBR		EPDM	NBR		EPDM	NBR	
Abrasion resistance	B	B	Ethyldiglycol	A	A	Naphta	D	A	
Cold resistance	B	B	Ethylene	A	C	Natriumchloride, filled	B	B	
Heat resistance	A	B	Ethyleneglycol	A	A	Oxygen	A	C	
Alcohol	A	B	Fat, Grease	D	A	Ozone	A	D	
Aluminumchloride	A	A	Glycerine, Glycol	A	A	Petroleum	D	A	
Asphalt	D	B	Isopropylene	D	A	Propane	D	A	
Benzine, super	D	A	Isopropylalcohol	A	B	Propanol, propyleneglycol	A	B	
Bensyl-alcohol	A	D	Kerosene	D	B	Raw / crude oil, aromatic	D	A	
Borax	B	A	Hot air max 70 °C	A	C	Silicone grease and -oils	A	C	
Buthanole, Butylalcohol	B	A	Hot air max 100 °C	A	D	Water, hot	A	D	
Buthyleneglycol	A	A	Light benzine	D	A	Water, industry	A	C	
Diesel oil	D	A	Methanol	A	C	Water, potable	--	A* *) white NBR	
Diethyleneglycol	A	A	Methyleneglycol	A	A				
Ethanol	A	C	Mineral oil	D	A				

A=Recommended

B=Recommended with minor limitations

C=Recommended with larger limitations

D=Not suitable

The information is based on experience and trials. No obligations or warranties are given. Always make own trials or ask us when in doubt.

Our standard expansion joints **GEPU** och **GEPU.SS** are designed to last for a long life time and all dimensions including DN 80 are rated PN 16.

Both are constructed with an EPDM-lining and cover.

Reinforced with strong nylon textile.

Couplings: Hot dip galvanized aducer iron couplings with a sferical sealing surface **GEPU** or stainless **GEPU.SS**

Options: Length limiters, which can be retrofitted.

Vacuum support in acid-proof design used

when greater negative pressure occurs

Additional info: Expansion joints with flanges, GEPF & GNIF and more types with chromed or stainless flanges are also stock items.

With reservation for changes without prior information

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Accessories for Expansion Joints

We offer different accessories for our expansion joints.
See the following pages: Vacuum support rings, PTFE-lining och Length limiters.



Vacuum support rings in AISI 316 spring steel



The vacuum support rings are used when the vacuum force is too high for the rubber bellows to support by itself.

DN 25-300: Max 750 mmHg vacuum without ring

DN 350-600: Max 500 mmHg vacuum without ring

The rings are produced in AISI 316 stainless spring steel, with different thickness depending on the size of the expansion joint.

<u>DN</u>	<u>Thickness</u>
32-65	1.5mm
80-125	2mm
150-300	3mm
350-450	4mm
500-600	6mm

PTFE-Lining

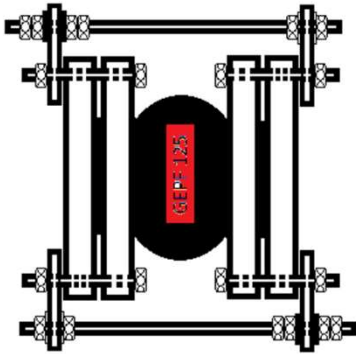


Area of use; examples

- Koncentrated acids or lyes
- In applications where taste or smell isn't allowed.
- For sticky substances when low friction is needed (for higher flow)
- Example of industry: Pharmaceutical and food industry

All our expansion joints can be delivered with PTFE-lining.

Technical data Length Limiters



Function

- Length limiters are used when it's not possible to fix the pipes after the expansion joint or pump etc. They can also be supplied in a version in order to limit the exp. joints movement sideways. Please note that there isn't any type of length limiter on the market which doesn't influence the vibration insulation capacity of the expansion joint one way or the other.

Construction

- The length limiter devices are demountable and this enables them to be mounted afterwards. They also fit other brands. As standard, they are adapted for compensators with a construction length of 130 mm and are available for longer compensators when this is specified when ordering. Neoprene rubber washers at one end of the limiter. For DN 50-150, all limiters are adapted for PN 16 and then flanges PN 10 are also included. In these dimensions, there are always two rods. For DN 200, there are also two rods. DN 250 and 300 have three rods. For DN 200 and larger, the flanges pressure class must be specified when ordering as the limiter's mounting plates have different dimensions between the bolt holes. We also have the possibility to provide fixed length limiters where the mounting plates sit directly on the compensator flange.

Assembly- & maintenance instructions (Part 1)

Storage

Rubber Expansion Joints are to be stored cool, dark and dry.

Maintenance

The expansion joints must be checked annually and replaced in the event of cracks or other visible defects.

Assembly

Make sure that the counter-flanges are shaped in such a way that the sealing surfaces of the rubber aren't damaged. The screws are to be tightened crosswise, and use a torque wrench* in order to get an equal tension according to the following table:

DN	25-80	100-300	350-500	600
First tightening	By hand	By hand	By hand	By hand
Second tightening*	50 Nm	50 NM	50 NM	100 Nm
Third tightening*	80 Nm	100 Nm	130 Nm	210 Nm

- Tighten all screws after the expansion joint has been in operation for one hour.
- Make sure that no sharp edges from tools or anything else damages the bellows.
- Screws are assembled so that the screw head ends up against the bellow, and the nut on the side of the counter flange

Installation dimensions

The expansion joints maximum extension, compression or deflection may not get exceeded. The maximum values cannot be combined.

The compensator must not be subjected to torsion, ie. is turned.

Negative pressure / Vacuum

With greater negative pressure, the expansion joint risks being sucked together, which also might occur in cases of severe pressure drop. We provide acid-proof vacuum rings. Vacuum rings must be factory-assembled.

High pressure / Pressure shocks

In cases where higher pressure occurs constantly or intermittently, (temporarily), and there is no possibility to anchor the pipes, length limiters should be used.

These accessories are provided by us and can be retrofitted.

Assembly- & maintenance instructions (Part 2)

Hot work / Welding close by an expansion joint in rubber

Make sure that the expansion joints are covered and don't get exposed to either the heat- or UV radiation.
UV radiation and heat from welding affects the service life of the compensator. This especially applies to NBR rubber.

Surrounding environment

The compensator must not be covered with insulation material..
Dust and dirt cause the compensator to dry out and thus get a shortened service life.

Transported media

Make sure that the expansion joints inner rubber / lining is suitable for the transported media.
It is fundamental that EPDM can't handle oils or fat, and that NBR (Nitrile) shouldn't convey acids or lyes.
Viton can handle most media at high temperature, but swells in esters, ethers and ketones
Hypalon is intended for acids.
Check with us in doubtful cases.

Assembly of Expansion Joints with union couplings Part 1

Storage

Rubber Expansion Joints are to be stored cool, dark and dry.

Maintenance

The expansion joints must be checked annually and replaced in the event of cracks or other visible defects.

Assembly

- Make sure that only the crown nut (the large nut) moves during tightening.
The compensator couplings must be tightened tightly to keep them tight.
If the other parts move / rotate, there is a risk that the sealing surfaces of the rubber compensator are broken.
- Start screwing the parts together by hand, and make sure that the threads fit correctly together.
Continue tightening by hand until the coupling fits snugly against the rubber body. Then tighten with a tool 1/2 to 3/4 turns. In total, at least two laps must be engaged.
If the assembly is incorrect will it start to leak immediately, or after a while of use. The media might not drop at the coupling but somewhere on the bellows body since it can migrate between the rubber layers in the sealing surface.
- Also make sure that the bellows body line up with the couplings, otherwise it might get crushed.
- Tighten both the expansion joints couplings after it has been in operation for an hour.
- Make sure that no sharp edges from tools or anything else damages the bellows.

Installation dimensions

The expansion joints maximum extension, compression or deflection may not get exceeded. The maximum values cannot be combined.

The compensator must not be subjected to torsion, ie. is turned.

Negative pressure / Vacuum

With greater negative pressure, the expansion joint risks being sucked together, which also might occur in cases of severe pressure drop. We provide acid-proof vacuum rings. Vacuum rings must be factory-assembled.

Assembly of Expansion Joints with union couplings Part 2

High temperatures

Specified pressure values apply at room temperature. If the working temperature is between 50 and 70 °C the maximum working pressure is reduced by 25%. For example, if the working pressure (WP) is 10 Bar it should be reduced by 25% = 7.5 Bar. If the permissible WP is 10 Bar and the working temperature is 70-100 °C it should be reduced by 40%, which gives the maximum permissible working pressure approx. 6 Bar.

Hot work / Welding close by an expansion joint in rubber

Make sure that the expansion joints are covered and don't get exposed to either the heat- or UV radiation. UV radiation and heat from welding affects the service life of the compensator. This especially applies to NBR rubber.

Surrounding environment

The compensator must not be covered with insulation material..
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Subject to change or printing errors