WILLBRANDT **Rubber Expansion Joint Type 48**

■ **mainly in stock**

DN 50 to DN 200

Type 48 is a highly corrugated rubber expansion joint with a corrugated shape that minimises inherent resistance. It is also characterised by its large movement absorption in all directions.

Type 48 is mainly used in industry for movement and vibration absorption.

Bellow design	High corrugated rubber bellow with reinforcement and shaped sealing bead, self-sealing (no additional seals required). Suitable for swiveling flanges.
Flange version	Both sides with swiveling flange made of galvanized steel, drilled according to DIN PN 10 (standard). Other materials and dimensions are possible.
Vacuum resistance	- DN 50 to 200 up to -200 mbar - With vacuum supporting spiral/ring, vacuum-proof
Approvals	CE (A2) (Detailed overview on page 5.)
Accessories	- Tie rods - Guide sleeves - Potential equalisation - Flame-resistant protective covers - Dust and splash protection covers - Earth cover / sun protection cover Further information on page 99- 105.

Specifications

Bellow		Bellow design			Permissible operating data						
Colour code	Colour marking	Core (inner)	Reinforcement	Cover (outer))	°C	bar	°C	bar	°C	bar	Short-term °C
red	■	EPDM	Sp. Cord	EPDM	50	16	70	10	90	6	100

Bursting pressure DN 50 - 200 > 48 bar

Important information

For aggressive media, please have the material resistance checked by our engineers.
The bellows must not be painted or insulated at media temperatures >50 °C.
Please also note the planning instructions.

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Application

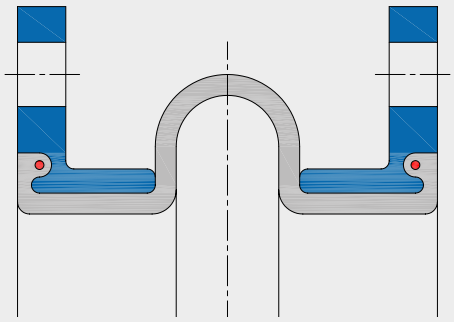
Type 48 red
For cooling water with glycol or other chemical additives for treating water, weak acids and weak alkalis, salt solutions.

Not suitable for oil products or cooling water with additives containing oil.

Design A - without tie rods

Can be used for absorb movements in all directions (for combined movements, refer to the movement diagram in the technical appendix), for vibration and noise damping.

The expansion joint's reaction force must be absorbed through appropriate pipeline guidance (see planning instructions in the appendix).



Dimensions

DN	Length	Bellow		Flange PN 10*2						Movement absorption*3				Weight
	BL	ØA	WF*1	ØD	ØLK	Ød	n	s	ØC	axial +	axial -	lateral ±	angular ±	
	mm	mm	mm²	mm	mm	mm		mm	mm	mm	mm	mm	∠°	kg
50	**150**	133	11900	165	125	18	4	16	96	25	25	20	30	5.4
65	**150**	147	14700	185	145	18	8	16	116	25	25	20	30	6.7
80	**150**	167	19400	200	160	18	8	18	133	25	25	20	30	7.5
100	**155**	197	27500	220	180	18	8	18	153	40	30	25	30	8.9
150	**155**	248	44500	285	240	23	8	20	203	45	35	25	20	15.9
200	**160**	292	62400	340	295	23	8	20	261	45	35	25	20	20.7

*1 WF = effective area
*2 Other standards/dimensions possible.
*3 Utilisation rate of movement absorption decreases at higher temperatures (see technical appendix).

Important information

Please note the appropriate fixed point constructions and plain bearings in your piping system!
Information on this can be found in our planning instructions.
Regarding the bracing, please refer to the information in the technical appendix (page 99 - 102).