

## WILLBRANDT PTFE Compensator Type 80

Type 80 is a PTFE expansion bellow compensator hot-formed from extruded PTFE tubing under pressure to form continuous corrugations.

### Design:

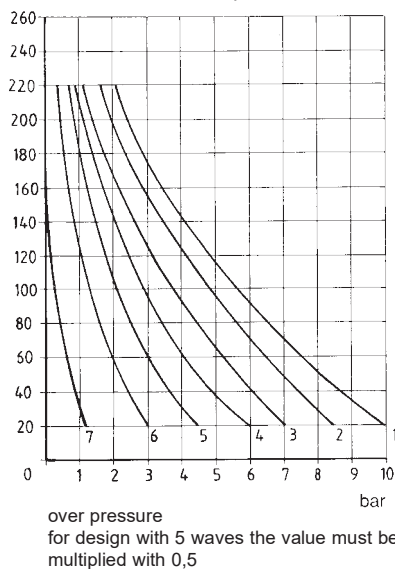
Pure PTFE bellow with external stainless steel supporting rings, PTFE profiles on both sides with steel backing-flange and integral brace.

### Application:

Chemical plants, for movement and noise reduction as well as compensation of assembly inaccuracies. Recommended for use in piping of fragile materials, e.g. glass, graphite, enamel. Minimal compensating forces are necessary due to the elasticity of the material.

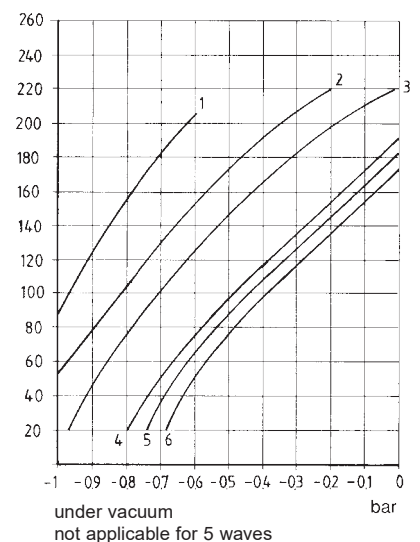


°C Power curve under pressure with 3 waves



curve	DN
1	25 - 80
2	100 - 150
3	200 - 250
4	300 - 350
5	400 - 450
6	500 - 600
7	700 - 1200

°C Power curve in vacuum with 3 waves



### Important installation information:

It is imperative that gaskets are used except in the case of PTFE/PTFE-connections, e.g. PTFE covered IT gaskets (Design 1) or PTFE covered IT gaskets with stainless steel inserts (Design 2) or their equivalent.

### Note:

Not suitable for vibrations!  
Do not insulate!  
See installation information!

### Special designs:

For glass tubing.  
For total vacuum.  
For higher working pressure.  
Available on request.

Special construction up to PN 16 possible in 2 - 10 corrugated design (Type 80 HD).

### Flanges:

Steel edge flanges with antirust coating on both sides, drilled acc. to DIN PN 10.  
Other materials and hole patterns available.



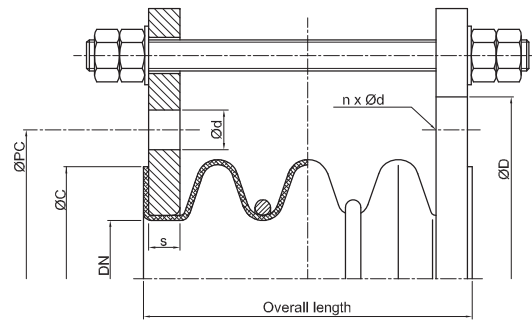
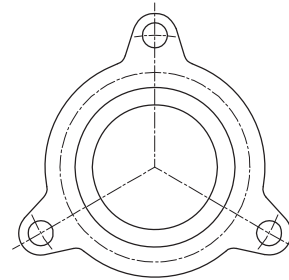
Type 1



Type 2

### Movement forces type 80

DN	3 Convolutions		5 Convolutions	
	ax ± N/mm	lat ± N/mm	ax ± N/mm	lat ± N/mm
20	45	20	-	-
25	45	20	40	15
32	50	25	40	20
40	50	28	40	20
50	50	45	40	35
65	40	50	35	40
80	40	60	35	45
100	50	90	35	60
125	60	110	40	80
150	100	150	80	120
200	150	180	100	150
250	150	200	100	170
300	150	200	120	170
350	200	270	160	250
400	200	270	200	230
450	250	290	200	240
500	300	350	250	300
600	300	350	250	300
700	350	410	-	-
800	380	490	-	-
900	400	530	-	-
1000	425	570	-	-
1200	460	620	-	-



DN	Effec. bellow surface  cm <sup>2</sup>	Flange						ØC mm	3 Convolutions				5 Convolutions				
		ØD mm	ØPC cm <sup>2</sup>	Ød mm	n	s mm	Movement absorption			Weight kg	Movement absorption			Weight kg			
							Overall length mm		axial + mm		axial - mm	lat. +/- mm	length mm		axial + mm	axial - mm	lat. +/- mm
20	9	105	75	14	4	12.0	53	50	10	10	8	2.5	-	-	-	-	-
25	13	115	85	14	4	10.0	62	50	12	12	10	2.5	70	15	15	12	2.8
32	18	140	100	18	4	12.5	72	50	12	12	12	3.0	75	20	20	18	3.5
40	25	150	110	18	4	12.5	80	50	12	12	15	4.0	75	20	20	20	4.5
50	39	165	125	18	4	14.5	98	75	15	15	15	6.0	100	20	20	25	6.5
65	55	185	145	18	4	18.5	118	75	22	22	17	7.0	100	35	35	30	7.5
80	90	200	160	18	8	18.5	122	100	25	25	17	8.0	125	40	40	30	9.0
100	135	220	180	18	8	18.0	148	100	25	25	17	10.0	150	40	40	30	11.0
125	190	250	210	18	8	20.5	174	125	28	28	18	12.0	175	45	45	32	13.0
150	295	285	240	22	8	21.0	200	150	28	28	18	15.0	225	45	45	32	17.0
200	460	340	295	22	8	23.0	256	150	28	28	20	20.0	225	45	45	32	22.0
250	670	395	350	22	12	27.0	303	150	28	28	10	35.0	225	45	45	15	37.0
300	940	445	400	22	12	27.0	360	150	30	30	8	48.0	225	50	50	10	50.0
350	1080	505	460	22	16	27.0	402	150	30	30	6	57.0	225	50	50	8	59.0
400	1400	565	515	27	16	27.5	453	150	30	30	6	70.0	225	50	50	8	72.0
450	1800	615	565	27	20	27.0	513	150	30	30	5	78.0	225	50	50	7	80.0
500	2100	670	620	27	20	29.0	564	150	30	30	5	86.0	225	50	50	7	89.0
600	3100	780	725	30	20	33.0	658	175	30	30	4	125.0	250	50	50	6	130.0
700	4415	895	840	30	24	33.0	800	170	35	35	2	128.0					
800	5700	1015	950	33	24	35.0	905	170	35	35	2	130.0					
900	7120	1115	1050	33	28	35.0	1005	170	35	35	2	133.0					
1000	8740	1230	1160	36	28	35.0	1110	170	35	35	2	146.0					
1200	12561	1455	1380	39	32	35.0	1330	170	35	35	2	175.0					