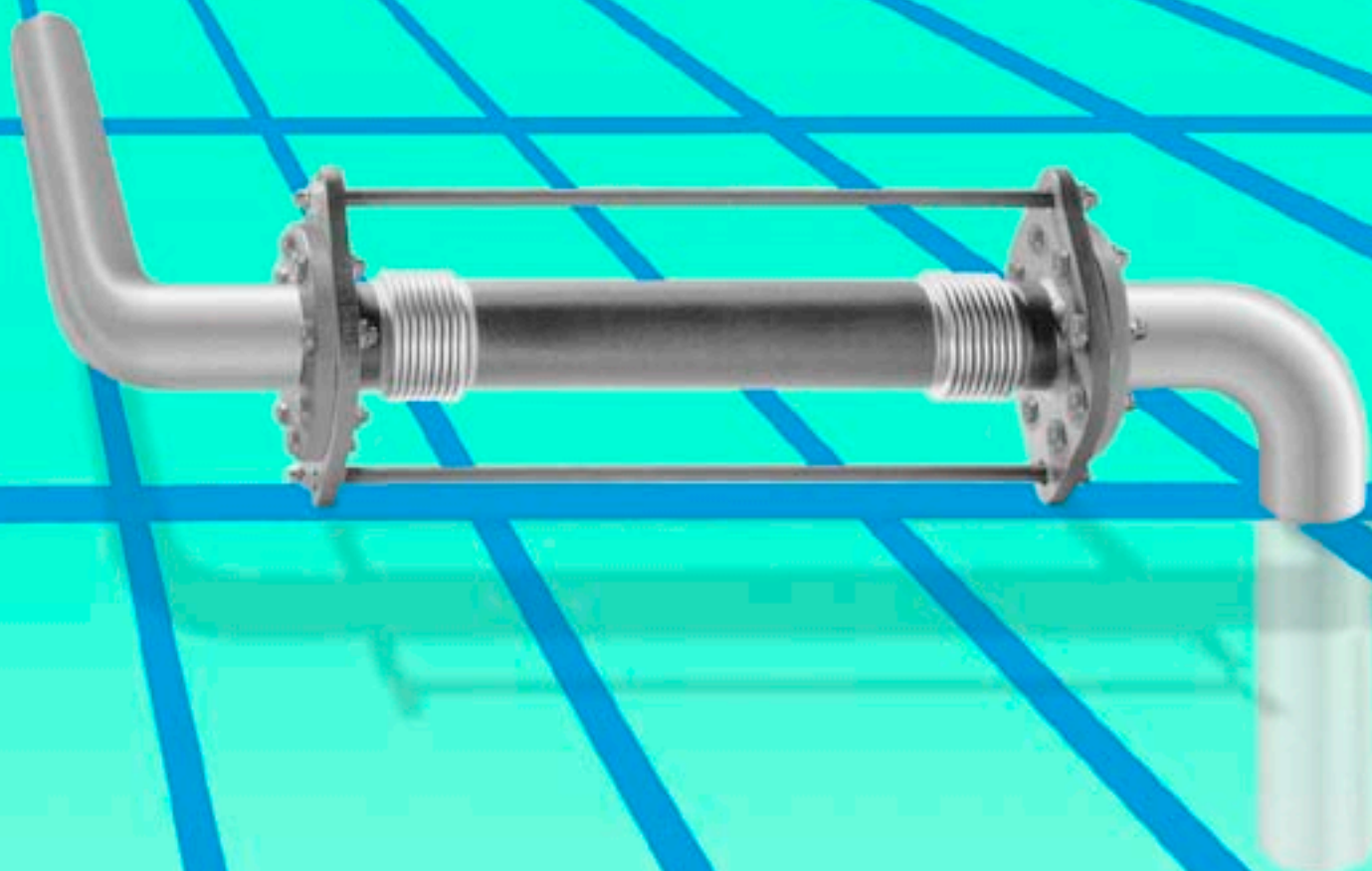




BOA Group

LATERAL  
EXPANSION JOINTS

TECHNICAL DATA

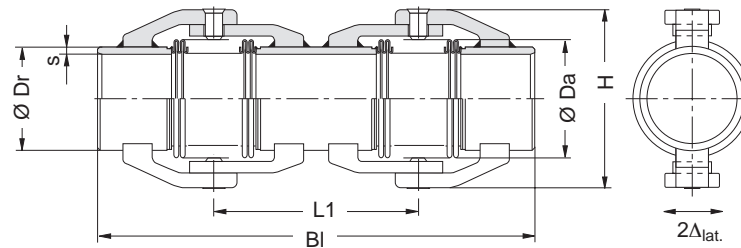


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# IWK Lateral Expansion Joints

**Type 7710**  
previous: 307/272



Ordering text:

7710 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	H	Weight [kg]	Welded end		Expansion joint				
							Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Additional force from pressure and rotation per 1 bar and 1 mm C <sub>z</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>	
		[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[N/mm]	[N]	[N/bar]	
50	16	86	230	460	130	6.2	60.3	3.2	74	3.3	0.16	1.74	
	16	123	330	560	130	7.0	60.3	3.2	74	1.6	0.08	1.21	
	16	161	430	660	130	7.9	60.3	3.2	74	0.9	0.05	0.93	
	16	198	530	760	130	8.7	60.3	3.2	74	0.6	0.03	0.75	
	25	71	230	460	130	6.4	60.3	3.2	74	5.4	0.16	1.74	
	25	101	330	560	130	7.3	60.3	3.2	74	2.6	0.08	1.21	
	25	132	430	660	130	8.1	60.3	3.2	74	1.5	0.05	0.93	
	25	163	530	760	130	8.9	60.3	3.2	74	1.0	0.03	0.75	
65	16	78	255	510	145	7.4	76.1	3.2	93	5.6	0.28	3.14	
	16	109	355	610	145	8.5	76.1	3.2	93	2.9	0.15	2.25	
	16	140	455	710	145	9.6	76.1	3.2	93	1.8	0.09	1.76	
	16	171	555	810	145	11.6	76.1	3.2	93	1.2	0.06	1.44	
	25	57	255	510	145	7.8	76.1	3.2	93	13.2	0.28	3.14	
	25	79	355	610	145	8.9	76.1	3.2	93	6.8	0.15	2.25	
	25	102	455	710	145	10.0	76.1	3.2	93	4.2	0.09	1.76	
	25	124	555	810	145	11.0	76.1	3.2	93	2.8	0.06	1.44	
80	16	74	255	510	160	8.2	88.9	3.6	105	7.8	0.37	3.92	
	16	103	355	610	160	9.5	88.9	3.6	105	4.0	0.19	2.82	
	16	133	455	710	160	10.8	88.9	3.6	105	2.4	0.12	2.20	
	16	162	555	810	160	12.0	88.9	3.6	105	1.6	0.08	1.80	
	25	53	255	510	195	8.6	88.9	3.6	105	17.6	0.37	3.92	
	25	73	355	610	195	9.9	88.9	3.6	105	9.1	0.19	2.82	
	25	94	455	710	195	11.2	88.9	3.6	105	5.5	0.12	2.20	
	25	115	555	810	195	12.4	88.9	3.6	105	3.7	0.08	1.80	
100	16	65	255	510	220	10.0	114.3	4.0	130	14.1	0.60	6.3	
	16	91	355	610	220	11.0	114.3	4.0	130	7.3	0.31	4.5	
	16	117	455	710	220	13.0	114.3	4.0	130	4.4	0.19	3.5	
	16	143	555	810	220	15.0	114.3	4.0	130	3.0	0.13	2.9	
	25	48	255	510	220	14.0	114.3	4.0	130	33.6	0.60	6.3	
	25	67	355	610	220	15.0	114.3	4.0	130	17.4	0.31	4.5	
	25	86	455	710	220	17.0	114.3	4.0	130	10.6	0.19	3.5	
	25	105	555	810	220	19.0	114.3	4.0	130	7.1	0.13	2.9	
125	16	180	505	1010	280	56.0	139.7	4.0	158	5.3	0.36	11.9	
	16	216	605	1110	280	59.0	139.7	4.0	158	3.7	0.25	9.9	
	16	252	705	1210	280	61.0	139.7	4.0	158	2.7	0.18	8.5	
	16	288	805	1310	280	64.0	139.7	4.0	158	2.1	0.14	7.5	
	25	139	505	1010	280	58.0	139.7	4.0	158	10.4	0.36	11.9	
	25	166	605	1110	280	61.0	139.7	4.0	158	7.2	0.25	9.9	
	25	194	705	1210	280	63.0	139.7	4.0	158	5.3	0.18	8.5	
	25	221	805	1310	280	66.0	139.7	4.0	158	4.0	0.14	7.5	
150	16	156	505	1010	310	62.0	168.3	4.5	187	8.2	0.54	15.8	
	16	186	605	1110	310	65.0	168.3	4.5	187	5.7	0.38	13.2	
	16	217	705	1210	310	68.0	168.3	4.5	187	4.2	0.28	11.3	
	16	248	805	1310	310	72.0	168.3	4.5	187	3.2	0.21	9.9	
	25	122	505	1010	310	64.0	168.3	4.5	187	16.4	0.54	15.8	
	25	146	605	1110	310	67.0	168.3	4.5	187	11.4	0.38	13.2	
	25	170	705	1210	310	70.0	168.3	4.5	187	8.4	0.28	11.3	
	25	194	805	1310	310	74.0	168.3	4.5	187	6.4	0.21	9.9	

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

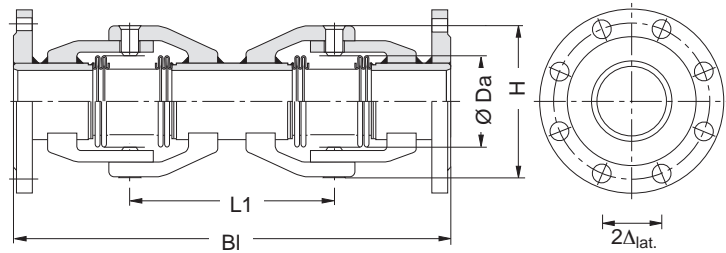
Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 120	1,00	1,11
150	0,96	1,09
200	0,88	1,06
250	0,80	1,00
300	0,68	0,95
350	0,62	0,93
400	0,50	0,90

<sup>2)</sup> Intermediare values can be linearly interpolated.

# IWK Lateral Expansion Joints

## Type 7720

previous: 307/273



Ordering text:

7720 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	H	Weight [kg]	Connection dimensions (flange)	Expansion joint			
								Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Additional force from pressure and rotation per 1 bar and 1 mm C <sub>z</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]			[mm]	[N/mm]	[N]	[N/bar]
50	16	86	230	470	130	11	DIN 2501	74	3.3	0.16	1.74
	16	123	330	570	130	12		74	1.6	0.08	1.21
	16	161	430	670	130	13		74	0.9	0.05	0.93
	16	198	530	770	130	14		74	0.6	0.03	0.75
	25	71	230	470	130	12		74	5.4	0.16	1.74
	25	101	330	570	130	13		74	2.6	0.08	1.21
	25	132	430	670	130	14		74	1.5	0.05	0.93
	25	163	530	770	130	15		74	1.0	0.03	0.75
65	16	78	255	520	145	13		93	5.6	0.28	3.14
	16	109	355	620	145	14		93	2.9	0.15	2.25
	16	140	455	720	145	15		93	1.8	0.09	1.76
	16	171	555	820	145	16		93	1.2	0.06	1.44
	25	57	255	520	145	14		93	13.2	0.28	3.14
	25	79	355	620	145	15		93	6.8	0.15	2.25
	25	102	455	720	145	16		93	4.2	0.09	1.76
	25	124	555	820	145	17		93	2.8	0.06	1.44
80	16	74	255	520	160	15		105	7.8	0.37	3.92
	16	103	355	620	160	16		105	4.0	0.19	2.82
	16	133	455	720	160	17		105	2.4	0.12	2.20
	16	162	555	820	160	19		105	1.6	0.08	1.80
	25	53	255	520	195	17		105	17.6	0.37	3.92
	25	73	355	620	195	18		105	9.1	0.19	2.82
	25	94	455	720	195	19		105	5.5	0.12	2.20
	25	115	555	820	195	21		105	3.7	0.08	1.80
100	16	65	255	520	220	17		130	14.1	0.60	6.3
	16	91	355	620	220	18		130	7.3	0.31	4.5
	16	117	455	720	220	20		130	4.4	0.19	3.5
	16	143	555	820	220	22		130	3.0	0.13	2.9
	25	48	255	520	220	21	130	33.6	0.60	6.3	
	25	67	355	620	220	23	130	17.4	0.31	4.5	
	25	86	455	720	220	25	130	10.6	0.19	3.5	
	25	105	555	820	220	26	130	7.1	0.13	2.9	
125	16	180	505	1025	280	67	158	5.3	0.36	11.9	
	16	216	605	1125	280	69	158	3.7	0.25	9.9	
	16	252	705	1225	280	72	158	2.7	0.18	8.5	
	16	288	805	1325	280	75	158	2.1	0.14	7.5	
	25	139	505	1025	280	72	158	10.4	0.36	11.9	
	25	166	605	1125	280	75	158	7.2	0.25	9.9	
	25	194	705	1225	280	78	158	5.3	0.18	8.5	
	25	221	805	1325	280	80	158	4.0	0.14	7.5	
150	16	156	505	1025	310	72	187	8.2	0.54	15.8	
	16	186	605	1125	310	76	187	5.7	0.38	13.2	
	16	217	705	1225	310	79	187	4.2	0.28	11.3	
	16	248	805	1325	310	82	187	3.2	0.21	9.9	
	25	122	505	1025	310	81	187	16.4	0.54	15.8	
	25	146	605	1125	310	84	187	11.4	0.38	13.2	
	25	170	705	1225	310	87	187	8.4	0.28	11.3	
	25	194	805	1325	310	89	187	6.4	0.21	9.9	

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

<sup>2)</sup> Intermediate values can be linearly interpolated.

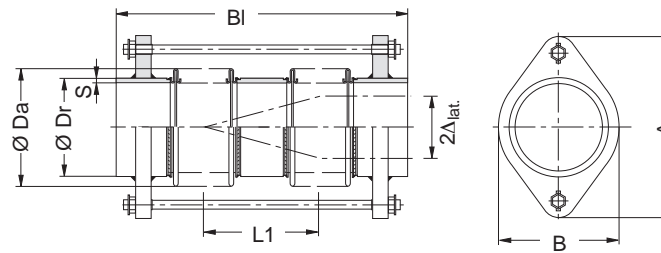
<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

Flange material:  
Standard design permissible up to 300 °C.  
For higher temperature ranges, please make arrangements during ordering.

# IWK Lateral Expansion Joints

**Type 7810**  
previous: 307/280–82



Ordering text:

7810 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Welded end		Expansion joint		
								Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[N/mm]	[N/bar]
40	6	27	109.1	285	160	75	2.6	48.3	2.6	57.5	9.6	3.9
	6	54	204.1	380	160	75	2.7	48.3	2.6	57.5	2.8	2.8
	6	100	415.0	590	160	75	4.1	48.3	2.6	57.5	0.7	1.7
	6	125	415.0	674	155	155	5.0	48.3	2.9	68.0	0.4	2.3
	16	24	136.6	300	160	75	2.6	48.3	2.6	57.5	9.0	3.7
	16	50	256.6	420	160	75	2.8	48.3	2.6	57.5	2.5	2.4
	16	71	405.0	570	160	75	4.0	48.3	2.6	57.5	1.0	1.7
	16	110	492.0	748	155	155	5.5	48.3	2.9	69.0	0.9	2.0
	25	25	119.6	285	160	75	2.7	48.3	2.6	57.0	18.7	3.7
	25	55	234.6	400	160	75	3.0	48.3	2.6	57.0	4.8	2.4
	25	85	410.0	580	160	75	4.1	48.3	2.6	57.0	1.5	1.6
	25	90	483.0	730	155	155	5.8	48.3	2.9	69.0	2.0	1.9
	40	25	217.5	385	160	75	3.6	48.3	2.6	57.0	8.1	2.6
	40	50	397.5	565	160	75	4.1	48.3	2.6	57.0	2.4	1.7
	40	75	587.5	755	160	75	4.7	48.3	2.6	57.0	1.1	1.2
	50	6	32	119.3	305	180	90	3.7	60.3	2.9	73.8	12.9
6		55	189.3	375	180	90	3.8	60.3	2.9	73.8	5.3	4.5
6		120	445.0	630	180	90	5.7	60.3	2.9	73.8	0.9	2.5
6		120	441.0	696	170	170	6.0	60.3	3.2	80.0	0.5	3.2
16		25	134.3	300	180	90	3.5	60.3	2.9	73.8	16.7	5.8
16		55	284.3	450	180	90	3.8	60.3	2.9	73.8	3.7	3.6
16		75	430.0	600	180	90	5.5	60.3	2.9	73.8	1.6	2.6
16		100	441.0	756	170	170	6.5	60.3	3.2	82.0	1.2	2.8
25		25	159.4	330	180	90	3.7	60.3	2.9	73.7	20.3	5.2
25		50	299.4	470	180	90	4.0	60.3	2.9	73.7	5.7	3.4
25		95	630.0	800	180	90	6.7	60.3	2.9	73.7	1.3	1.9
25		90	458.0	710	170	170	6.8	60.3	3.2	82.5	2.0	3.0
40		25	222.5	395	180	90	4.5	60.3	2.9	73.2	15.8	4.1
40		50	422.5	595	180	90	5.6	60.3	2.9	73.2	4.4	2.6
40		75	622.5	795	180	90	6.7	60.3	2.9	73.2	2.0	1.9
65		6	29	123.3	315	200	115	4.9	76.1	2.9	93.8	19.3
	6	54	180.0	370	200	115	5.3	76.1	2.9	93.5	11.0	7.3
	6	75	326.0	520	200	115	6.6	76.1	2.9	93.8	2.8	5.1
	6	110	457.0	708	190	190	7.7	76.1	3.2	104.0	0.8	5.2
	16	25	174.9	360	200	115	5.1	76.1	2.9	93.7	19.0	7.7
	16	42	182.8	375	200	115	5.6	76.1	2.9	93.3	20.3	7.1
	16	75	471.5	655	200	115	7.6	76.1	2.9	93.7	2.9	3.9
	16	85	458.0	710	190	190	8.5	76.1	3.2	104.0	2.5	5.2
	25	25	180.0	370	200	115	5.3	76.1	2.9	93.5	41.1	7.3
	25	42	193.3	395	200	115	6.1	76.1	2.9	92.7	28.0	6.5
	25	75	484.0	680	200	115	7.9	76.1	2.9	93.5	4.9	3.7
	25	85	464.0	722	190	190	8.8	76.1	3.2	105.0	4.0	4.9
	40	25	222.5	435	200	115	6.3	76.1	2.9	92.7	32.5	6.3
	40	50	402.5	615	200	115	7.5	76.1	2.9	92.7	10.1	4.2
	40	75	582.5	795	200	115	8.7	76.1	2.9	92.7	4.8	3.1
	80	6	25	123.8	315	220	140	6.1	88.9	3.2	105.0	27.1
6		46	180.5	370	220	140	6.6	88.9	3.2	104.7	15.4	9.5
6		75	356.0	550	220	140	8.4	88.9	3.2	105.0	3.3	6.1
6		100	420.0	674	205	205	10.0	88.9	3.6	116.0	1.0	6.8
16		29	175.4	360	220	140	6.3	88.9	3.2	104.7	26.7	9.9
16		37	183.3	375	220	140	6.8	88.9	3.2	104.5	28.4	9.2
16		75	521.5	705	220	140	9.8	88.9	3.2	104.9	3.4	4.7
16		85	426.0	686	205	205	11.0	88.9	3.6	117.5	4.0	6.8
25		23	180.6	370	220	140	6.6	88.9	3.2	104.7	58.4	9.5
25		38	193.8	395	220	140	7.5	88.9	3.2	103.9	39.0	8.4
25		75	534.0	730	220	140	10.2	88.9	3.2	104.7	5.8	4.4
25		85	441.0	706	205	205	12.3	88.9	3.6	118.5	6.0	6.5
40		25	242.5	455	220	140	8.6	88.9	3.2	103.9	38.4	7.6
40		50	452.5	665	220	140	9.8	88.9	3.2	103.9	11.2	4.9
40		75	652.5	865	220	140	11.4	88.9	3.2	103.9	5.4	3.7

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

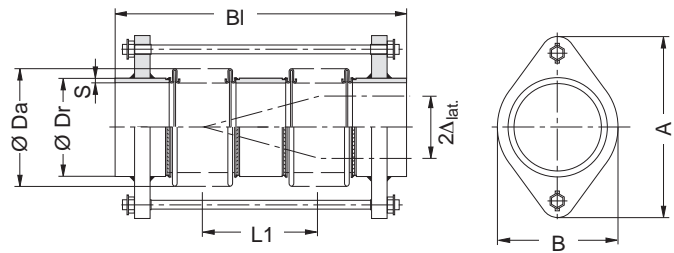
<sup>2)</sup> Intermediare values can be linearly interpolated.

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

# IWK Lateral Expansion Joints

## Type 7810

previous: 307/280–82



Ordering text:

7810 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / Bl. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length Bl.	Large flange axis A	Small flange axis B	Weight [kg]	Welded end		Expansion joint		
								Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[N/mm]	[N/bar]
100	6	33	148.4	385	240	160	9.8	114.3	3.6	136.2	33.9	16.2
	6	58	225.8	465	240	160	10.9	114.3	3.6	135.8	20.3	12.7
	6	75	387.5	625	240	160	13.3	114.3	3.6	136.2	5.6	9.3
	6	85	372.0	700	260	260	15.0	114.3	4.0	138.0	2.5	11.0
	16	35	215.6	445	240	160	10.4	114.3	3.6	136.0	44.2	13.5
	16	48	234.1	480	240	160	12.5	114.3	3.6	134.9	49.3	11.8
	16	82	534.0	770	240	160	15.5	114.3	3.6	136.0	7.0	7.3
	16	75	388.0	712	260	260	17.3	114.3	4.0	141.0	7.0	10.5
	25	28	215.8	445	240	160	10.8	114.3	3.6	135.8	84.5	13.4
	25	47	234.1	480	240	160	12.6	114.3	3.6	134.9	49.3	11.9
	25	75	544.0	790	240	160	16.0	114.3	3.6	135.8	11.4	7.0
	25	70	438.0	782	260	260	17.7	114.3	4.0	141.0	11.0	19.0
	40	25	246.0	490	240	160	12.6	114.3	3.6	134.9	68.2	12.1
	40	50	446.0	690	240	160	15.0	114.3	3.6	134.9	21.1	8.1
	40	75	636.0	880	240	160	17.4	114.3	3.6	134.9	10.4	6.2
	125	6	30	154.9	390	290	210	14.7	139.7	4.0	157.9	49.5
6		53	232.3	470	290	210	15.9	139.7	4.0	157.5	30.2	17.5
6		75	402.5	645	290	210	19.5	139.7	4.0	157.9	7.3	12.4
6		80	400.0	726	285	285	19.5	139.7	4.0	168.5	3.4	15.0
16		32	232.1	470	290	210	15.4	139.7	4.0	157.7	59.9	17.6
16		44	243.1	490	290	210	18.0	139.7	4.0	156.6	71.7	16.2
16		80	604.0	840	290	210	23.0	139.7	4.0	157.7	8.7	9.2
16		75	354.0	704	285	285	27.5	139.7	4.0	173.0	17.0	14.8
25		25	175.9	430	290	210	17.3	139.7	4.0	156.8	181.9	19.0
25		42	243.1	490	290	210	18.0	139.7	4.0	156.6	71.7	16.2
25		75	614.0	860	290	210	23.8	139.7	4.0	157.5	14.3	8.9
25		75	434.0	780	285	285	29.5	139.7	4.0	174.0	16.0	14.0
40		25	276.0	580	290	210	20.1	139.7	4.0	156.6	85.3	17.2
40		50	506.0	810	290	210	24.1	139.7	4.0	156.6	25.7	10.9
40		75	736.0	1040	290	210	28.1	139.7	4.0	156.6	12.2	8.0
150		6	25	154.9	390	325	240	17.6	168.3	4.5	186.2	81.8
	6	45	232.3	470	325	240	19.1	168.3	4.5	185.7	49.9	26.0
	6	87	521.5	765	325	240	26.4	168.3	4.5	186.2	7.2	15.0
	6	75	355.0	704	324	324	21.0	168.3	4.5	195.0	7.0	21.0
	16	22	232.3	470	325	240	19.1	168.3	4.5	185.7	193.6	26.0
	16	38	232.5	470	325	240	19.7	168.3	4.5	185.5	83.9	25.8
	16	75	586.0	830	325	240	28.3	168.3	4.5	185.9	13.6	13.6
	16	75	439.0	792	324	324	31.5	168.3	4.5	203.0	17.0	24.0
	25	28	232.9	470	325	240	21.0	168.3	4.5	185.0	203.0	25.5
	25	35	243.1	490	325	240	21.6	168.3	4.5	185.0	118.3	24.4
	25	80	754.0	1000	325	240	32.3	168.3	4.5	185.7	16.0	11.0
	25	75	498.0	860	324	324	43.0	168.3	4.5	205.0	21.0	52.0
	40	25	284.0	600	325	240	26.3	168.3	4.5	184.8	110.2	23.8
	40	50	514.0	830	325	240	31.8	168.3	4.5	184.8	34.2	15.4
	40	75	744.0	1060	325	240	37.3	168.3	4.5	184.8	16.4	11.3

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

<sup>2)</sup> Intermediare values can be linearly interpolated.

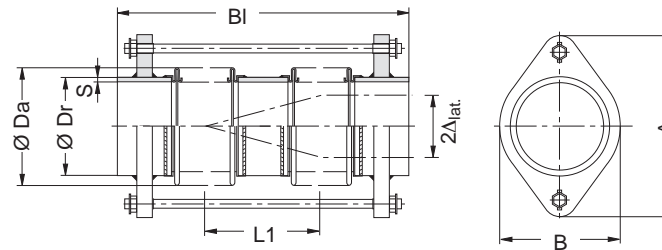
<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes



# IWK Lateral Expansion Joints

**Type 7810**  
previous: 307/280–82



Ordering text:  
7810 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Welded end		Expansion joint		
								Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[N/mm]	[N/bar]
200	6	30	297.0	623	380	250	25.5	219.1	6.3	260.0	60.4	38.4
	6	50	375.0	711	380	250	26.5	219.1	6.3	260.0	34.9	32.4
	6	75	750.0	1100	380	250	48.8	219.1	6.3	260.0	25.4	19.5
	6	75	451.0	806	405	405	51.0	219.1	6.3	256.0	20.0	68.0
	10	25	300.0	630	380	250	24.1	219.1	6.3	260.0	104.4	37.7
	10	58	380.0	721	380	250	28.3	219.1	6.3	259.0	51.1	31.4
	10	75	760.0	1110	380	250	49.3	219.1	6.3	260.0	24.8	19.3
	10	75	451.0	806	405	405	51.0	219.1	6.3	256.0	20.0	68.0
	16	32	290.0	629	390	275	28.5	219.1	6.3	259.0	120.9	91.3
	16	50	531.0	901	390	275	43.6	219.1	6.3	260.0	50.6	58.8
	16	75	770.0	1140	390	275	53.5	219.1	6.3	260.0	24.1	44.5
	16	75	500.0	846	405	405	56.0	219.1	6.3	253.0	23.0	62.0
	25	25	290.0	690	390	275	38.8	219.1	6.3	258.0	336.1	82.7
	25	50	525.0	925	390	275	48.7	219.1	6.3	258.0	104.6	56.8
	25	75	755.0	1155	390	275	58.5	219.1	6.3	258.0	50.8	43.5
	25	75	597.0	994	405	405	73.0	219.1	6.3	258.0	23.0	77.0
40	25	338.0	751	400	295	52.7	219.1	6.3	258.0	425.9	85.7	
40	50	618.0	1031	400	295	65.1	219.1	6.3	258.0	129.4	57.6	
40	75	894.0	1307	400	295	77.9	219.1	6.3	258.0	62.0	43.5	
250	6	25	245.0	609	420	315	23.4	273.0	6.3	314.0	123.1	130.0
	6	50	497.0	833	420	315	26.6	273.0	6.3	314.0	43.7	85.9
	6	75	861.0	1231	420	315	53.6	273.0	6.3	314.0	33.5	53.9
	6	75	534.0	958	478	478	77.0	273.0	5.0	306.0	21.0	100.0
	10	25	249.0	618	420	315	28.0	273.0	6.3	313.0	246.5	125.6
	10	48	382.0	743	420	315	29.8	273.0	6.3	313.0	85.1	98.2
	10	75	870.0	1240	420	315	53.9	273.0	6.3	314.0	32.8	53.4
	10	75	534.0	958	478	478	77.0	273.0	5.0	306.0	21.0	100.0
	16	25	303.0	655	450	320	39.8	273.0	6.3	313.0	308.0	129.9
	16	50	610.0	980	450	320	57.1	273.0	6.3	314.0	66.6	80.5
	16	75	885.0	1255	450	320	70.9	273.0	6.3	314.0	31.7	60.4
	16	75	522.0	954	478	478	80.0	273.0	6.3	308.0	34.0	102.0
	25	25	330.0	720	450	320	54.1	273.0	6.3	312.0	452.3	134.5
	25	50	601.0	991	450	320	68.9	273.0	6.3	312.0	138.4	90.7
	25	75	870.0	1260	450	320	83.4	273.0	6.3	312.0	66.3	68.6
	25	75	674.0	1108	478	478	110.0	273.0	6.3	315.5	32.0	120.0
40	25	385.0	820	470	330	78.6	273.0	6.3	312.0	578.6	133.9	
40	50	715.0	1150	470	330	102.0	273.0	6.3	312.0	169.9	88.2	
40	75	1035.0	1470	470	330	124.6	273.0	6.3	312.0	81.3	66.3	
300	6	29	367.0	713	500	385	39.1	323.9	8.0	365.0	111.5	169.0
	6	50	692.0	1062	500	385	78.3	323.9	8.0	364.0	87.8	102.6
	6	75	996.0	1366	500	385	102.8	323.9	8.0	364.0	41.6	76.7
	6	75	591.0	1052	540	540	110.0	323.9	5.6	358.0	25.0	152.0
	10	29	370.0	720	500	385	44.6	323.9	8.0	364.0	218.8	164.8
	10	50	692.0	1062	500	385	78.3	323.9	8.0	364.0	86.0	121.6
	10	75	1010.0	1380	500	385	103.7	323.9	8.0	364.0	40.5	75.8
	10	75	591.0	1052	540	540	110.0	323.9	5.6	358.0	25.0	152.0
	16	30	374.0	748	500	385	57.3	323.9	8.0	363.0	326.5	184.8
	16	50	705.0	1095	500	385	90.5	323.9	8.0	364.0	82.9	116.9
	16	75	1010.0	1400	500	385	113.7	323.9	8.0	364.0	40.5	87.7
	16	75	697.0	1134	540	540	120.0	323.9	5.6	367.5	41.0	139.0
	25	25	375.0	805	500	375	82.9	323.9	8.0	363.0	585.2	195.7
	25	50	695.0	1125	500	375	108.8	323.9	8.0	363.0	172.4	128.5
	25	75	1010.0	1440	500	375	134.4	323.9	8.0	363.0	81.9	96.0
	25	75	737.0	1194	540	540	150.0	323.9	7.1	367.5	37.0	84.0
40	25	445.0	930	540	405	117.2	323.9	8.0	362.0	724.6	193.6	
40	50	825.0	1310	540	405	160.3	323.9	8.0	362.0	212.8	126.1	
40	75	1200.0	1685	540	405	198.0	323.9	8.0	362.0	100.8	93.3	

<sup>1)</sup> Deviation ± 30 %

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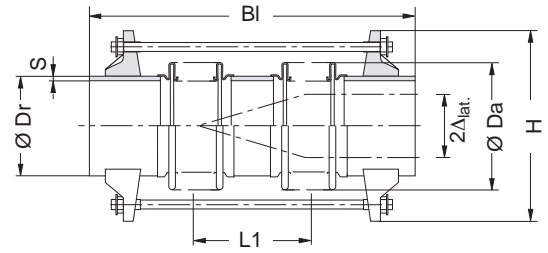
Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

<sup>2)</sup> Intermediare values can be linearly interpolated.

# IWK Lateral Expansion Joints

## Type 7810

previous: 307/280–82



Ordering text:

7810 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	H	Weight [kg]	Welded end		Expansion joint		
							Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[N/mm]	[N/bar]
350	6	10	107	595	605	62	355.6	8.0	395	2956	202
	6	50	295	890	605	82	355.6	8.0	395	222	118
	6	70	395	990	605	89	355.6	8.0	395	133	104
	6	140	795	1390	605	119	355.6	8.0	395	35	70
	10	6	107	595	605	69	355.6	8.0	395	2956	202
	10	27	295	890	605	94	355.6	8.0	395	391	117
	10	42	395	990	605	102	355.6	8.0	395	234	103
	10	92	795	1390	605	133	355.6	8.0	395	62	69
	16	5	107	665	635	108	355.6	8.0	395	5199	291
	16	21	295	960	635	137	355.6	8.0	394	911	172
	16	30	395	1060	635	145	355.6	8.0	394	544	152
	16	68	795	1460	635	179	355.6	8.0	394	144	103
	25	4	107	665	635	125	355.6	8.0	394	12122	289
	25	21	285	950	635	155	355.6	8.0	394	966	172
	25	30	385	1050	635	164	355.6	8.0	394	570	152
	25	68	785	1450	635	202	355.6	8.0	394	148	103
	400	6	9	107	595	660	71	406.4	8.8	447	4162
6		50	285	880	660	91	406.4	8.8	447	331	159
6		65	385	980	660	100	406.4	8.8	447	196	139
6		135	785	1380	660	138	406.4	8.8	447	51	93
10		6	107	665	690	108	406.4	8.8	447	4162	379
10		27	285	950	690	135	406.4	8.8	447	584	232
10		39	385	1050	690	146	406.4	8.8	447	345	199
10		85	785	1450	690	187	406.4	8.8	447	89	135
16		4	107	665	690	129	406.4	8.8	447	7331	378
16		19	285	950	690	166	406.4	8.8	446	1383	230
16		27	385	1050	690	177	406.4	8.8	446	817	197
16		60	785	1450	690	220	406.4	8.8	446	212	133
25		3	107	825	720	160	406.4	8.8	446	17366	408
25		19	285	1110	720	216	406.4	8.8	446	1383	247
25		27	385	1210	720	228	406.4	8.8	446	817	218
25		60	785	1610	720	277	406.4	8.8	446	212	149
450		6	8	107	595	710	90	457.2	10.0	498	5670
	6	46	285	880	710	112	457.2	10.0	498	452	198
	6	60	385	980	710	125	457.2	10.0	498	267	173
	6	120	785	1380	710	173	457.2	10.0	498	69	116
	10	4	107	665	750	138	457.2	10.0	498	9971	477
	10	25	285	950	750	164	457.2	10.0	498	795	284
	10	35	385	1050	750	176	457.2	10.0	498	469	249
	10	80	785	1450	750	227	457.2	10.0	498	122	169
	16	5	120	850	770	172	457.2	10.0	497	9175	407
	16	27	320	1170	770	232	457.2	10.0	497	724	256
	16	35	420	1270	770	248	457.2	10.0	497	450	228
	16	79	820	1670	770	307	457.2	10.0	497	127	158
	25	5	120	850	790	208	457.2	10.0	497	9175	554
	25	17	285	1110	790	245	457.2	10.0	498	1894	354
	25	25	385	1210	790	261	457.2	10.0	498	1118	313
	25	56	785	1610	790	324	457.2	10.0	498	290	213
	500	6	8	107	665	800	121	508.0	11.0	550	7509
6		42	285	950	800	148	508.0	11.0	550	599	350
6		55	385	1050	800	163	508.0	11.0	550	354	308
6		110	785	1450	800	224	508.0	11.0	550	92	209
10		4	107	665	800	149	508.0	11.0	550	13184	587
10		23	285	950	800	183	508.0	11.0	550	1051	349
10		33	385	1050	800	200	508.0	11.0	550	620	307
10		76	785	1450	800	262	508.0	11.0	550	161	208
16		5	120	850	825	210	508.0	11.0	548	12109	559
16		27	320	1170	825	267	508.0	11.0	548	956	354
16		35	420	1270	825	283	508.0	11.0	548	594	316
16		80	820	1670	825	351	508.0	11.0	548	168	220
25		5	120	990	840	240	508.0	11.0	548	12109	638
25		17	285	1250	840	314	508.0	11.0	549	2514	417
25		24	385	1350	840	332	508.0	11.0	549	1485	370
25		52	785	1750	840	406	508.0	11.0	549	385	254

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
–	–	–
–10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

<sup>2)</sup> Intermediare values can be linearly interpolated.

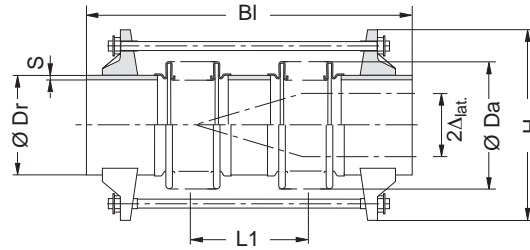
<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes



# IWK Lateral Expansion Joints

## Type 7810 previous: 307/280-82



Ordering text:

7810 – DN ... / PN ... /  $\pm \Delta_{lat}$  ... / BI. ...

DN	PN	Nominal lateral movement capacity $\pm \Delta_{lat}$	Bellows middle distance $L_1$	Overall length BI.	H	Weight [kg]	Welded end		Expansion joint		
							$\varnothing$ Dr	s	Outer diameter $\varnothing$ Da	Lateral spring rate <sup>1)</sup> $C_{lat}$	Hinge friction <sup>1)</sup> $C_r$
		[mm]	[mm]	[mm]	[mm]	[kg]	[mm]	[mm]	[mm]	[N/mm]	[N/bar]
600	6	7	107	665	900	156	609.6	8.0	651	12231	839
	6	37	285	950	900	194	609.6	8.0	651	975	499
	6	50	385	1050	900	210	609.6	8.0	651	576	440
	6	100	785	1450	900	261	609.6	8.0	651	149	298
	10	3	107	825	930	220	609.6	8.0	651	21416	838
	10	20	285	1110	930	262	609.6	8.0	651	1707	498
	10	27	385	1210	930	276	609.6	8.0	651	1008	439
	10	64	785	1610	930	333	609.6	8.0	651	261	297
	16	4	120	850	950	296	609.6	8.0	650	19737	969
	16	25	320	1170	950	358	609.6	8.0	650	1558	561
	16	33	420	1270	950	374	609.6	8.0	650	969	501
	16	75	820	1670	950	442	609.6	8.0	650	280	350
	25	2	120	990	1000	395	609.6	8.0	651	51563	1123
	25	15	325	1420	1000	530	609.6	8.0	651	3277	684
	25	20	425	1520	1000	554	609.6	8.0	651	2023	615
	25	44	825	1920	1000	651	609.6	8.0	651	570	438

<sup>1)</sup> Deviation  $\pm 30$  %

Reserve the right for technical changes

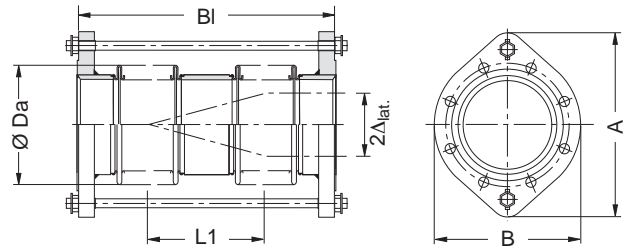
Reduction factor <sup>2)</sup> for pressure [ $K_p$ ] and movement capacity [ $K_\Delta$ ]		
Temperature °C	$K_p$ –	$K_\Delta$ –
–10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

<sup>2)</sup> Intermediare values can be linearly interpolated.

# IWK Lateral Expansion Joints

## Type 7820

previous: 307/281-83



Ordering text:

7820 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / Bl. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length Bl.	Large flange axis A	Small flange axis B	Weight [kg]	Connection dimensions (flange)	Expansion joint		
									Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		[mm]	[N/mm]	[N/bar]
40	6	28	99.0	185	240	130	4.0	DIN 2501	57.5	8.1	4.5
	6	50	179.5	255	240	130	4.2		57.5	3.1	3.3
	6	100	440.9	505	240	130	5.6		57.5	0.6	1.7
	6	125	415.0	498	241	130	5.5		68.0	0.4	2.5
	16	30	160.5	225	260	150	5.6		57.5	6.3	3.8
	16	50	294.6	360	260	150	7.3		57.5	1.9	2.4
	16	100	557.5	625	260	150	7.8		57.5	0.5	1.4
	16	110	492.0	576	252	150	7.5		69.0	0.9	2.3
	25	25	137.4	207	260	150	6.6		57.0	13.3	3.9
	25	55	247.4	316	260	150	7.2		57.0	4.2	2.6
	25	85	407.4	480	260	150	8.0		57.0	1.5	1.7
	25	90	483.0	562	252	150	8.0		69.0	2.0	2.2
	40	25	216.8	275	260	150	7.0		57.0	8.1	2.9
	40	50	351.8	410	260	150	7.6		57.0	3.1	2.0
	40	75	516.8	575	260	150	8.4		57.0	1.4	1.4
	50	6	32	114.5	195	250	140		4.5	DIN 2501	73.8
6		55	184.5	265	250	140	4.7	73.8	5.3		5.3
6		123	446.5	528	250	140	6.7	73.8	0.9		2.7
6		120	441.0	520	251	140	6.5	80.0	0.5		3.5
16		23	107.5	190	275	165	7.3	73.7	28.5		7.3
16		40	177.5	260	275	165	7.5	73.7	10.9		5.4
16		75	429.0	500	275	165	9.3	73.8	1.6		2.8
16		100	506.0	590	267	165	9.1	82.0	1.2		3.1
25		24	105.0	190	275	165	8.4	73.2	35.6		7.1
25		45	175.0	260	275	165	8.7	73.2	14.4		5.2
25		90	589.0	665	275	165	11.2	73.7	1.4		2.1
25		90	458.0	548	261	165	10.0	82.5	2.0		3.4
40		28	221.7	290	275	165	9.0	73.2	15.8		4.7
40		50	371.7	440	275	165	10.0	73.2	5.7		3.1
40		75	541.7	610	275	165	11.0	73.2	2.7		2.2
65		6	28	115.5	200	270	160	5.3	DIN 2501		93.8
	6	50	175.0	260	270	160	5.8	93.5		11.2	8.6
	6	75	323.5	410	270	160	7.1	93.8		2.8	5.7
	6	110	457.0	532	262	160	7.0	104.0		0.8	6.2
	16	32	168.5	255	295	185	8.8	93.7		19.7	9.0
	16	42	175.5	270	295	185	9.2	93.3		20.9	8.4
	16	75	469.0	555	295	185	11.4	93.7		2.9	4.2
	16	85	458.0	544	287	185	10.2	104.0		2.5	5.8
	25	25	172.0	270	295	185	10.6	93.5		43.1	8.6
	25	40	183.5	295	295	185	11.5	92.7		29.4	7.5
	25	75	481.3	585	295	185	13.4	93.5		4.9	4.0
	25	85	464.0	564	281	185	12.5	105.0		4.0	5.5
	40	26	220.1	311	295	185	11.6	92.7		32.5	7.1
	40	50	395.1	485	295	185	12.9	92.7		10.3	4.6
	40	75	580.1	670	295	185	14.2	92.7		4.8	3.3
	80	6	25	117.0	206	300	190	7.7		DIN 2501	105.0
6		47	175.5	265	300	190	8.2	104.7	15.4		11.1
6		75	353.5	445	300	190	10.2	105.0	3.3		6.8
6		100	420.0	502	292	190	9.5	116.0	1.0		7.8
16		30	169.0	260	310	200	10.6	104.9	27.3		11.5
16		50	353.9	440	310	200	12.9	104.9	7.2		6.8
16		75	516.9	605	310	200	14.3	104.9	3.4		5.0
16		85	426.0	524	302	200	12.8	117.0	4.0		7.7
25		23	175.0	280	310	200	12.9	104.7	58.7		10.7
25		50	450.2	545	310	200	16.0	104.7	10.3		5.5
25		75	531.3	640	310	200	16.8	104.7	5.8		4.7
25		85	441.0	552	296	200	15.3	118.5	6.0		7.3
40		25	240.1	335	310	200	14.9	103.9	38.4		8.6
40		50	450.1	545	310	200	17.0	103.9	11.4		5.3
40		75	650.1	745	310	200	19.1	103.9	5.4		3.9

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

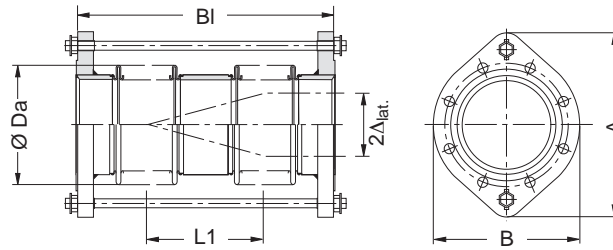
<sup>2)</sup> Intermediare values can be linearly interpolated.

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

# IWK Lateral Expansion Joints

**Type 7820**  
previous: 307/281-83



Ordering text:

7820 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Connection dimensions (flange)	Expansion joint		
									Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		[mm]	[N/mm]	[N/bar]
100	6	32	141.5	245	320	210	9.5	DIN 2501	136.2	34.4	20.7
	6	60	218.0	330	320	210	10.8		135.8	20.5	15.3
	6	75	456.9	561	320	210	14.2		136.2	4.0	9.2
	6	85	372.0	466	312	210	11.0		138.0	2.5	12.4
	16	35	211.5	320	330	220	13.2		136.0	43.3	15.8
	16	50	230.5	360	330	220	15.5		134.9	47.2	13.5
	16	82	531.0	640	330	220	18.6		136.0	7.0	8.0
	16	75	388.0	488	322	220	15.3		141.0	7.0	11.8
	25	28	212.5	330	345	235	17.5		135.8	81.7	15.6
	25	48	231.5	370	345	235	19.4		134.9	46.8	13.5
	25	75	540.9	670	345	235	23.1		135.8	11.4	7.7
	25	70	448.0	546	337	235	18.5		141.0	11.0	22.0
	40	25	243.0	360	345	240	23.7		134.9	68.2	14.3
	40	50	443.0	560	345	240	26.3		134.9	21.3	8.9
	40	75	633.0	750	345	240	29.0		134.9	10.4	6.6
	125	6	30	150.5	260	360	240		13.0	157.9	48.5
6		53	225.0	340	360	240	14.3		157.5	30.4	20.7
6		75	399.6	511	360	240	18.1		157.9	7.3	13.9
6		80	400.0	496	342	240	14.5		168.5	3.4	17.5
16		23	151.5	270	370	250	17.6		157.7	113.3	26.3
16		44	228.0	350	370	250	18.7		157.2	49.7	20.0
16		81	600.9	715	370	250	25.9		157.7	8.7	9.9
16		75	424.0	554	352	250	20.0		170.0	13.0	15.6
25		25	164.0	305	390	270	24.9		156.8	191.8	23.2
25		42	236.0	375	390	270	25.7		156.6	70.9	18.6
25		75	610.8	743	390	270	31.9		157.5	14.3	9.6
25		75	503.0	626	390	270	30.5		171.0	15.0	28.0
40		25	273.0	400	390	275	34.0		156.6	85.3	18.3
40		50	503.0	630	390	275	37.2		156.6	25.4	11.4
40		75	733.0	860	390	275	43.7		156.6	12.2	8.2
150		6	25	150.5	260	385	265		14.4	186.2	80.1
	6	45	225.0	340	385	265	15.8		185.7	50.2	29.4
	6	87	518.7	631	385	265	23.6	186.2	7.2	16.2	
	6	70	355.0	496	361	265	16.0	195.0	7.0	25.5	
	16	23	223.0	340	405	295	22.3	185.7	198.7	29.8	
	16	50	511.1	625	405	295	30.2	185.9	23.4	16.3	
	16	75	578.9	695	405	295	31.9	185.9	13.6	14.7	
	16	75	473.0	606	387	285	28.0	195.0	15.0	18.0	
	25	35	236.5	380	430	300	32.4	184.8	116.6	26.6	
	25	50	523.0	660	430	300	38.7	185.7	32.6	15.6	
	25	80	750.9	886	430	300	43.8	185.7	16.0	11.6	
	25	75	464.0	618	430	300	42.0	197.0	23.0	55.2	
	40	25	320.5	462	430	300	47.9	184.8	103.1	23.0	
	40	50	515.2	665	430	300	51.7	184.8	34.2	15.6	
	40	75	741.2	890	430	300	59.6	184.8	16.4	11.5	

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

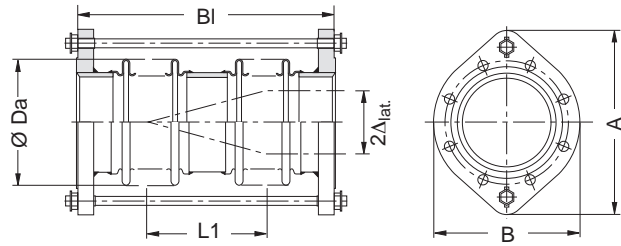
<sup>2)</sup> Intermediare values can be linearly interpolated.

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub> –	K <sub>Δ</sub> –
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

# IWK Lateral Expansion Joints

## Type 7820

previous: 307/281-83



Ordering text:

7820 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Connection dimensions (flange)	Expansion joint		
									Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		[mm]	[N/mm]	[N/bar]
200	6	30	281.2	426	430	320	25.0	DIN 2501	259.5	60.4	45.6
	6	50	360.8	516	430	320	29.0		259.3	34.9	37.3
	6	75	750.6	900	430	320	48.0		259.2	25.4	21.3
	6	75	488.0	634	422	320	32.0		252.0	8.0	35.0
	10	25	284.7	444	450	340	32.0		260.0	104.4	43.5
	10	58	365.9	536	450	340	39.0		258.7	51.1	35.4
	10	75	759.6	920	450	340	53.0		259.2	24.8	20.8
	10	75	522.0	654	442	340	41.0		251.5	13.0	34.0
	16	32	275.1	440	480	340	46.0		258.7	120.9	45.2
	16	50	530.6	706	480	340	56.0		259.2	50.6	27.9
	16	75	769.6	945	480	340	65.0		259.2	24.1	20.6
	16	75	500.0	644	470	340	47.0		253.0	23.0	62.0
	25	25	289.0	450	515	360	65.0		258.0	336.1	43.9
	25	50	524.0	685	515	360	75.0		258.0	104.6	28.2
	25	75	754.0	915	515	360	85.0		258.0	50.8	20.9
	25	75	595.0	754	510	360	63.0		254.0	32.0	74.0
40	25	337.5	511	560	380	84.0	257.4	425.9	38.3		
40	50	617.5	790	560	380	97.0	257.4	129.4	24.2		
40	75	893.5	1066	560	380	110.0	257.4	62.0	17.7		
250	6	25	229.3	395	485	385	38.0	DIN 2501	313.8	123.0	74.6
	6	50	482.4	621	485	385	39.0		313.4	43.7	46.8
	6	75	860.6	1022	485	385	66.0		313.3	33.5	28.6
	6	75	500.0	664	495	375	47.0		306.5	17.0	93.0
	10	25	233.5	423	535	395	55.0		313.0	246.5	71.8
	10	48	367.2	550	535	395	57.0		312.8	85.1	54.2
	10	75	793.0	1040	535	395	81.0		313.3	32.8	28.3
	10	75	534.0	708	515	395	54.0		306.0	21.0	108.0
	16	25	286.3	475	550	405	76.0		312.1	308.0	63.2
	16	50	607.6	795	550	405	84.0		313.3	66.6	37.6
	16	75	884.6	1072	550	405	97.0		313.3	31.7	27.6
	16	75	522.0	684	555	405	73.0		308.0	34.0	125.0
	25	25	330.0	539	610	435	103.0		312.0	452.2	55.7
	25	50	601.0	810	610	435	117.0		312.0	138.4	36.2
	25	75	880.0	1079	610	435	132.0		312.0	66.3	26.9
	25	75	628.0	812	595	425	96.0		309.0	46.0	120.0
40	25	385.0	583	660	460	149.0	311.5	578.5	51.7		
40	50	715.0	913	660	460	174.0	311.5	169.9	31.9		
40	75	1035.0	1233	660	460	196.0	311.5	81.3	23.3		
300	6	29	351.5	482	580	450	53.0	DIN 2501	364.3	111.5	88.2
	6	50	691.6	827	580	450	91.0		363.8	87.8	49.8
	6	75	1004.6	1131	580	450	112.0		363.8	41.6	36.1
	6	75	557.0	736	560	440	62.0		358.5	19.0	120.0
	10	29	354.4	541	600	450	78.0		363.5	218.8	77.9
	10	50	691.6	879	600	450	107.0		363.8	86.0	47.1
	10	75	1009.6	1197	600	450	130.0		363.8	40.5	34.2
	10	75	591.0	780	580	445	67.0		360.0	25.0	155.0
	16	30	357.6	559	645	480	115.0		362.6	326.5	74.9
	16	50	704.6	904	645	480	136.0		363.8	82.9	46.0
	16	75	1009.6	1209	645	480	160.0		363.6	40.5	34.0
	16	75	572.0	752	605	460	85.0		361.0	46.0	155.0
	25	25	375.0	568	690	490	154.0		362.5	585.2	74.2
	25	50	695.0	888	690	490	184.0		362.5	172.4	46.2
	25	75	1010.0	1203	690	490	202.0		362.5	81.9	33.7
	25	75	659.0	868	690	485	110.0		362.0	70.0	176.0
40	25	455.0	671	760	515	225.0	362.0	724.6	61.1		
40	50	825.0	1051	760	515	258.0	362.0	212.8	38.3		
40	75	1199.0	1426	760	515	291.0	362.0	100.8	27.9		

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

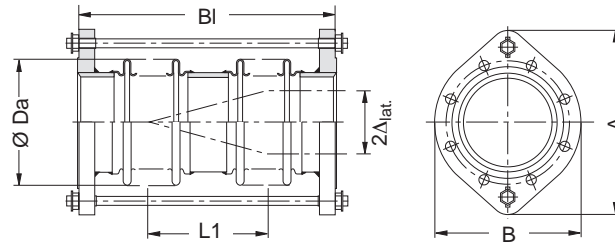
<sup>2)</sup> Intermediate values can be linearly interpolated.

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

# IWK Lateral Expansion Joints

**Type 7820**  
previous: 307/281–83



Ordering text:

7820 – DN ... / PN ... /  $\pm \Delta_{lat}$  ... / BI. ...

DN	PN	Nominal lateral movement capacity $\pm \Delta_{lat}$	Bellows middle distance $L_1$	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Connection dimensions (flange)	Expansion joint		
									Outer diameter $\varnothing Da$	Lateral spring rate <sup>1)</sup> $C_{lat}$	Hinge friction <sup>1)</sup> $C_r$
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		[mm]	[N/mm]	[N/bar]
350	6	10	107	435	610	490	72	DIN 2501	395	2956	156
	6	50	305	740	610	490	90		395	215	91
	6	70	405	840	610	490	96		395	133	80
	6	140	805	1240	610	490	127		395	35	55
	10	6	107	435	630	505	88		395	2956	177
	10	29	305	740	630	505	108		395	379	103
	10	42	405	840	630	505	112		395	231	91
	10	92	805	1240	630	505	141		395	61	61
	16	5	107	435	675	520	124		395	5199	243
	16	21	305	740	675	520	150		394	884	144
	16	30	405	840	675	520	159		394	539	126
	16	68	805	1240	675	520	193		394	143	85
	25	4	107	435	750	555	189		394	12122	302
	25	21	305	740	750	555	211		394	901	176
	25	30	405	840	750	555	220		394	553	155
	25	68	805	1240	750	555	255		394	147	97
400	6	9	107	465	660	540	90	DIN 2501	447	4162	242
	6	50	295	760	660	540	110		447	320	147
	6	65	395	860	660	540	118		447	186	130
	6	135	795	1260	660	540	152		447	51	89
	10	6	107	465	720	565	133		447	4162	297
	10	28	295	760	720	565	159		447	566	180
	10	39	395	860	720	565	169		447	341	159
	10	88	795	1260	720	565	209		447	88	108
	16	4	107	465	750	580	172		447	7331	337
	16	20	325	760	750	580	204		446	1105	204
	16	28	425	860	750	580	215		446	682	180
	16	60	825	1260	750	580	257		446	192	123
	25	3	107	465	840	620	258		446	17366	407
	25	19	285	760	840	620	291		446	1383	249
	25	27	385	860	840	620	303		446	817	220
	25	60	785	1260	840	620	354		446	212	151
500	6	8	107	505	790	645	152	DIN 2501	550	7510	341
	6	42	365	800	790	645	177		550	389	213
	6	55	465	900	790	645	192		550	250	190
	6	110	865	1300	790	645	250		550	76	132
	10	4	107	505	850	670	206		550	13183	457
	10	24	365	800	850	670	236		550	683	286
	10	34	465	900	850	670	252		550	438	254
	10	77	865	1300	850	670	314		550	133	176
	16	5	120	530	940	715	317		548	12110	548
	16	27	390	860	940	715	367		548	678	338
	16	36	490	960	940	715	383		548	448	302
	16	80	890	1360	940	715	451		548	143	214
	25	5	120	530	970	730	442		548	12110	614
	25	17	315	800	970	730	458		549	2119	407
	25	24	415	900	970	730	476		549	1295	365
	25	52	815	1300	970	730	549		549	357	253
600	6	7	107	545	920	755	208	DIN 2501	651	12230	560
	6	37	385	840	920	755	237		651	576	360
	6	50	485	940	920	755	250		651	376	322
	6	100	885	1340	920	755	304		651	118	226
	10	3	107	545	980	780	316		651	21415	683
	10	21	385	840	980	780	350		651	1008	439
	10	29	485	940	980	780	364		651	658	392
	10	65	885	1340	980	780	398		651	207	275
	16	4	120	570	1080	840	498		650	19736	817
	16	25	400	900	1080	840	544		650	1058	517
	16	34	500	1000	1080	840	560		650	704	465
	16	76	900	1400	1080	840	625		650	229	333
	25	2	107	545	1130	845	630		651	51563	1123
	25	15	325	840	1130	845	689		651	3278	722
	25	20	425	940	1130	845	709		651	2024	646
	25	44	825	1340	1130	845	788		651	570	453

<sup>1)</sup> Deviation  $\pm 30\%$

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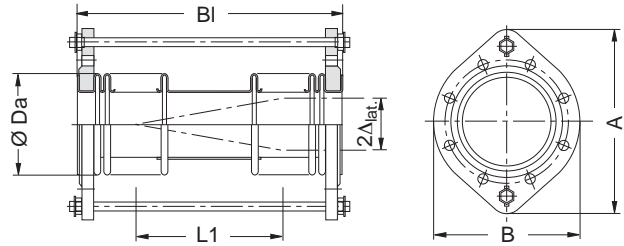
<sup>2)</sup> Intermediare values can be linearly interpolated.

Reduction factor <sup>2)</sup> for pressure $[K_p]$ and movement capacity $[K_\Delta]$		
Temperature °C	$K_p$ –	$K_\Delta$ –
–10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

# IWK Lateral Expansion Joints

## Type 7850

previous: 307/285–87



Ordering text:

7850 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI	Large flange axis A	Small flange axis B	Weight [kg]	Design <sup>3)</sup>	Connection dimension flange	Expansion joint		
										Outer diameter Ø Da [mm]	Lateral spring rate <sup>1)</sup> C <sub>lat</sub> [N/mm]	Hinge friction <sup>1)</sup> C <sub>r</sub> [N/bar]
40	6	28	110	185	240	130	3.6	A	DIN 2501	58	8.1	4.1
	6	50	180	255	240	130	3.8	A		58	3.1	3.0
	6	125	415	498	241	130	5.5	A		68	0.4	2.7
	10/16	30	161	225	260	150	5.1	A		58	6.3	3.4
	10/16	50	232	316	252	150	6.9	A		69	4.2	4.2
	10/16	110	492	576	252	150	7.5	A		69	0.9	2.3
	25	25	153	232	252	150	7.5	A		69	13.0	5.4
	25	50	283	362	252	150	7.8	A		69	4.0	3.4
	25	90	483	562	252	150	8.0	A		69	2.0	2.2
	50	6	32	115	195	250	140	4.1		A	DIN 2501	74
6		55	185	265	250	140	4.3	A	74	5.3		4.7
6		120	441	520	251	140	6.0	A	80	0.5		3.6
10/16		23	108	190	275	165	6.7	A	74	28.5		6.5
10/16		40	178	260	275	165	6.8	A	74	10.9		4.7
10/16		100	506	590	267	165	9.1	A	82	1.2		3.1
25		24	105	190	275	165	7.6	A	74	38.6		6.2
25		45	175	260	275	165	7.9	A	74	14.4		4.5
25		90	458	548	261	165	10.0	A	82	2.0		3.4
65		6	28	116	200	270	160	4.8	A	DIN 2501		94
	6	50	175	260	270	160	5.3	A	94		11.2	7.7
	6	110	457	532	262	160	6.6	A	104		0.8	6.4
	10/16	32	168	255	295	185	8.0	A	94		19.6	8.0
	10/16	42	175	270	295	185	8.5	A	94		20.9	7.4
	10/16	85	458	544	287	185	10.2	A	104		2.3	5.8
	25	25	172	270	295	185	9.6	A	94		43.1	7.5
	25	40	183	295	295	185	10.4	A	94		29.4	6.5
	25	85	464	564	281	185	12.5	A	105		4.0	5.5
	80	6	25	117	206	300	190	7.2	A		DIN 2501	105
6		47	176	265	300	190	7.6	A	105	15.4		9.8
6		100	420	502	292	190	9.0	A	116	1.0		8.3
10/16		30	169	260	310	200	9.8	A	105	27.3		10.1
10/16		50	266	364	302	200	12.5	A	117	9.0		11.0
10/16		85	426	524	302	200	12.8	A	117	3.6		7.7
25		23	175	280	310	200	11.9	A	105	58.7		9.3
25		50	271	382	296	200	15.0	A	119	14.0		8.3
25		85	441	552	296	200	15.3	A	119	6.0		7.3
100		6	32	141	245	320	210	9.0	A	DIN 2501		136
	6	60	218	325	320	210	10.2	A	136		20.5	13.5
	6	85	372	466	312	210	10.2	A	138		2.4	12.7
	10/16	35	212	320	330	220	12.4	A	136		43.3	13.8
	10/16	50	231	360	330	220	14.7	A	135		47.2	11.8
	10/16	75	388	488	322	220	15.3	A	141		6.7	11.8
	25	28	213	330	345	235	16.4	A	136		81.7	13.3
	25	48	232	370	345	235	18.2	A	135		46.8	11.4
	25	70	438	546	337	235	18.5	A	141		11.0	22.0
	125	6	30	151	260	360	240	12.7	A		DIN 2501	158
6		53	225	335	360	240	14.0	A	158	30.4		18.2
6		80	400	496	342	240	13.5	A	169	3.4		17.5
10/16		23	152	270	370	250	16.7	A	158	113.3		22.7
10/16		44	228	350	370	250	17.9	A	158	49.7		17.3
10/16		75	424	554	352	250	19.8	A	170	12.9		15.6
25		25	164	305	390	270	24.0	A	157	191.8		19.6
25		42	236	375	390	270	24.5	A	157	70.9		15.8
25		75	501	626	390	270	30.3	A	171	15.0		28.0
150		6	25	151	260	385	265	13.8	A	DIN 2501		187
	6	45	225	335	385	265	15.2	A	187		50.2	26.1
	6	75	355	496	361	265	15.0	A	195		7.8	25.3
	10/16	23	224	340	405	295	20.4	A	186		198.7	25.7
	10/16	50	332	456	387	285	23.1	A	195		29.7	24.0
	10/16	75	473	606	387	285	27.7	A	195		14.1	18.0
	25	35	237	380	430	300	30.1	A	185		116.6	22.5
	25	48	300	458	430	300	34.5	A	197		53.0	74.5
	25	75	460	618	430	300	42.0	A	197		23.0	55.2

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

<sup>2)</sup> Intermediate values can be linearly interpolated.

<sup>1)</sup> Deviation ± 30 %

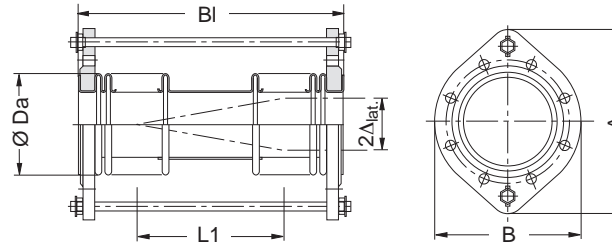
<sup>3)</sup> Design A with intermediate pipe made of non-rusting stainless steel

Reserve the right for technical changes



# IWK Lateral Expansion Joints

**Type 7850**  
previous: 307/285–87



Ordering text:

7850 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	Large flange axis A	Small flange axis B	Weight [kg]	Design <sup>3)</sup>	Connection dimension flange	Expansion joint			
										Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>	
		[mm]	[mm]	[mm]	[mm]	[mm]				[mm]	[N/mm]	[N/bar]	
200	6	23	163	310	422	320	23	A	DIN 2501	252	67	71	
	6	45	303	450	422	320	24	A		252	21	49	
	6	75	488	634	422	320	34	B		252	8	35	
	10	23	177	310	442	340	30	A		252	98	72	
	10	40	282	414	442	340	31	A		252	41	54	
	10	75	522	654	442	340	41	B		252	13	34	
	16	25	180	326	470	340	35	A		253	160	122	
	16	40	333	460	470	340	36	A		253	64	86	
	16	75	500	644	470	340	47	B		253	23	62	
	25	25	213	355	510	360	47	A		255	204	157	
	25	40	328	470	510	360	49	A		255	93	119	
	25	75	595	754	510	360	63	B		254	32	74	
250	6	25	190	354	495	375	31	A		DIN 2501	307	105	174
	6	42	300	464	495	375	32	A			307	45	133
	6	75	500	664	495	375	43	B			307	17	93
	10	23	182	354	515	395	42	A			306	164	207
	10	40	294	466	515	395	43	A			306	67	158
	10	75	534	708	515	395	54	B			306	21	108
	16	22	191	332	555	405	57	A			310	261	257
	16	33	271	412	555	405	59	A			310	135	207
	16	75	522	684	555	405	73	B			308	35	125
	25	25	212	402	595	425	77	A			310	430	242
	25	50	438	622	595	425	87	B			309	93	157
	25	75	628	812	595	425	96	B			309	46	120
300	6	23	192	371	560	440	40	A	DIN 2501		359	151	238
	6	33	267	446	560	440	41	A			359	78	198
	6	75	557	736	560	440	55	B			359	19	120
	10	22	211	378	580	445	51	A			360	196	309
	10	35	321	490	580	445	51	B			360	88	239
	10	75	591	780	580	445	67	B			359	25	155
	16	25	250	408	605	460	69	A			361	290	286
	16	50	392	572	605	460	83	B			361	96	204
	16	75	572	752	605	460	89	B			361	46	155
	25	25	254	447	630	485	85	B			362	413	262
	25	50	459	652	630	485	98	B			362	140	180
	25	75	659	852	630	485	110	B			362	70	138

<sup>1)</sup> Deviation ± 30 %

<sup>3)</sup> Design A with intermediate pipe made of non-rusting stainless steel  
Design B with intermediate pipe made of C steel (optionally made of 1.4541)

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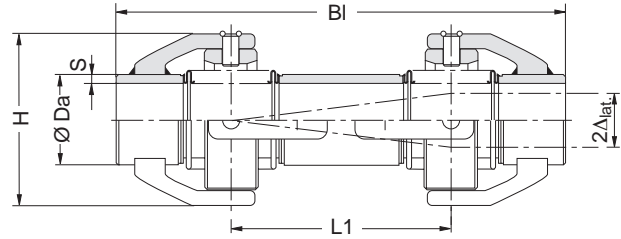
Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 20	1.00	1.00
50	0.92	0.97
100	0.87	0.94
150	0.83	0.92
200	0.79	0.90
250	0.74	0.88
300	0.67	0.86

<sup>2)</sup> Intermediate values can be linearly interpolated.

# IWK Lateral Expansion Joints

## Type 7410

previous: 307/290



Ordering text:

7410 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / Bl. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length Bl.	H	Weight [kg]	Welded end		Expansion joint				
							Ø Dr	s	Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Additional force from pressure and rotation per 1 bar and 1 mm C <sub>z</sub>	Hinge friction <sup>1)</sup> C <sub>r</sub>	
		[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[N]	[N/mm]	[N/bar]	
50	16	86	230	485	155	13.4	60.3	3.2	74	3.3	0.16	1.74	
	16	123	330	585	155	14.2	60.3	3.2	74	1.6	0.08	1.21	
	16	161	430	685	155	15.4	60.3	3.2	74	0.9	0.05	0.93	
	16	198	530	785	155	15.9	60.3	3.2	74	0.6	0.03	0.75	
	25	71	230	485	155	13.6	60.3	3.2	74	5.4	0.16	1.74	
	25	101	330	585	155	14.4	60.3	3.2	74	2.6	0.08	1.21	
	25	132	430	685	155	15.6	60.3	3.2	74	1.5	0.05	0.93	
	25	163	530	785	155	16.1	60.3	3.2	74	1.0	0.03	0.75	
65	16	78	255	510	171	14.8	76.1	3.2	93	5.6	0.28	3.14	
	16	109	355	610	171	15.9	76.1	3.2	93	2.9	0.15	2.25	
	16	140	455	710	171	17.0	76.1	3.2	93	1.8	0.09	1.76	
	16	171	555	810	171	18.0	76.1	3.2	93	1.2	0.06	1.44	
	25	57	255	510	171	15.0	76.1	3.2	93	13.2	0.28	3.14	
	25	79	355	610	171	16.1	76.1	3.2	93	6.8	0.15	2.25	
	25	102	455	710	171	17.2	76.1	3.2	93	4.2	0.09	1.76	
	25	124	555	810	171	18.2	76.1	3.2	93	2.8	0.06	1.44	
80	16	74	255	510	185	16.6	88.9	3.6	105	7.8	0.37	3.92	
	16	103	355	610	185	17.9	88.9	3.6	105	4.0	0.19	2.82	
	16	133	455	710	185	19.2	88.9	3.6	105	2.4	0.12	2.20	
	16	162	555	810	185	20.4	88.9	3.6	105	1.6	0.08	1.80	
	25	53	255	510	195	17.1	88.9	3.6	105	17.6	0.37	3.92	
	25	73	355	610	195	18.5	88.9	3.6	105	9.1	0.19	2.82	
	25	94	455	710	195	19.8	88.9	3.6	105	5.5	0.12	2.20	
	25	115	555	810	195	21.0	88.9	3.6	105	3.7	0.08	1.80	
100	16	65	255	510	220	18.8	114.3	4.0	130	14.1	0.60	6.30	
	16	91	355	610	220	20.5	114.3	4.0	130	7.3	0.31	4.50	
	16	117	455	710	220	22.2	114.3	4.0	130	4.4	0.19	3.50	
	16	143	555	810	220	23.8	114.3	4.0	130	3.0	0.13	2.90	
	25	48	255	510	220	19.4	114.3	4.0	130	33.6	0.60	6.30	
	25	67	355	610	220	21.1	114.3	4.0	130	17.4	0.31	4.50	
	25	86	455	710	220	22.8	114.3	4.0	130	10.6	0.19	3.50	
	25	105	555	810	220	24.4	114.3	4.0	130	7.1	0.13	2.90	
125	16	180	505	1010	308	70.0	139.7	4.0	158	5.3	0.36	8.90	
	16	216	605	1110	308	73.0	139.7	4.0	158	3.7	0.25	7.40	
	16	252	705	1210	308	75.0	139.7	4.0	158	2.7	0.18	6.40	
	16	288	805	1310	308	78.0	139.7	4.0	158	2.1	0.14	5.60	
	25	139	505	1010	308	70.0	139.7	4.0	158	10.4	0.36	8.90	
	25	166	605	1110	308	73.0	139.7	4.0	158	7.2	0.25	7.40	
	25	194	705	1210	308	75.0	139.7	4.0	158	5.3	0.18	6.40	
	25	221	805	1310	308	78.0	139.7	4.0	158	4.0	0.14	5.60	
150	16	156	505	1010	334	80.0	168.3	4.5	187	8.2	0.54	11.90	
	16	186	605	1110	334	83.0	168.3	4.5	187	5.7	0.38	9.90	
	16	217	705	1210	334	86.0	168.3	4.5	187	4.2	0.28	8.50	
	16	248	805	1310	334	89.0	168.3	4.5	187	3.2	0.21	7.40	
	25	122	505	1010	334	80.0	168.3	4.5	187	16.4	0.54	11.90	
	25	146	605	1110	334	83.0	168.3	4.5	187	11.4	0.38	9.90	
	25	170	705	1210	334	86.0	168.3	4.5	187	8.4	0.28	8.50	
	25	194	805	1310	334	89.0	168.3	4.5	187	6.4	0.21	7.40	

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

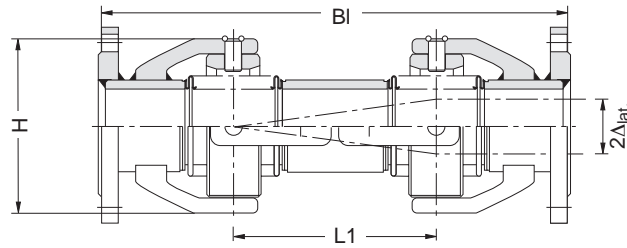
<sup>2)</sup> Intermediate values can be linearly interpolated.

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

# IWK Lateral Expansion Joints

**Type 7420**  
previous: 307/291



Ordering text:

7420 – DN ... / PN ... / ± Δ<sub>lat</sub> ... / BI. ...

DN	PN	Nominal lateral movement capacity ± Δ <sub>lat</sub>	Bellows middle distance L <sub>1</sub>	Overall length BI.	H	Weight [kg]	Connection dimensions (flange)	Expansion joint			
								Outer diameter Ø Da	Lateral spring rate <sup>1)</sup> C <sub>lat</sub>	Additional force from pressure and rotation per 1 bar and 1 mm C <sub>z</sub>	Hinge friction <sup>1)</sup> C <sub>f</sub>
		[mm]	[mm]	[mm]	[mm]			[mm]	[N/mm]	[N]	[N/bar]
50	16	86	230	495	155	17.8	DIN 2501	74	3.3	0.16	1.74
	16	123	330	595	155	18.6		74	1.6	0.08	1.21
	16	161	430	695	155	19.8		74	0.9	0.05	0.93
	16	198	530	795	155	20.3		74	0.6	0.03	0.75
	25	71	230	495	155	18.8		74	5.4	0.16	1.74
	25	101	330	595	155	19.6		74	2.6	0.08	1.21
	25	132	430	695	155	20.8		74	1.5	0.05	0.93
	25	163	530	795	155	21.3		74	1.0	0.03	0.75
65	16	78	255	520	171	20.2		93	5.6	0.28	3.14
	16	109	355	620	171	21.3		93	2.9	0.15	2.25
	16	140	455	720	171	22.4		93	1.8	0.09	1.76
	16	171	555	820	171	23.4		93	1.2	0.06	1.44
	25	57	255	520	171	21.4		93	13.2	0.28	3.14
	25	79	355	620	171	22.5		93	6.8	0.15	2.25
	25	102	455	720	171	23.6		93	4.2	0.09	1.76
	25	124	555	820	171	24.6		93	2.8	0.06	1.44
80	16	74	255	520	185	23.2		105	7.8	0.37	3.92
	16	103	355	620	185	24.5		105	4.0	0.19	2.82
	16	133	455	720	185	25.8		105	2.4	0.12	2.20
	16	162	555	820	185	27.0		105	1.6	0.08	1.80
	25	53	255	520	195	25.1		105	17.6	0.37	3.92
	25	73	355	620	195	26.5		105	9.1	0.19	2.82
	25	94	455	720	195	27.8		105	5.5	0.12	2.20
	25	115	555	820	195	29.0		105	3.7	0.08	1.80
100	16	65	255	520	220	26.0		130	14.1	0.60	6.30
	16	91	355	620	220	28.0		130	7.3	0.31	4.50
	16	117	455	720	220	29.0		130	4.4	0.19	3.50
	16	143	555	820	220	31.0		130	3.0	0.13	2.90
	25	48	255	520	220	30.0		130	33.6	0.60	6.30
	25	67	355	620	220	32.0		130	17.4	0.31	4.50
	25	86	455	720	220	33.0		130	10.6	0.19	3.50
	25	105	555	820	220	35.0		130	7.1	0.13	2.90
125	16	180	505	1025	308	80.0		158	5.3	0.36	8.90
	16	216	605	1125	308	83.0		158	3.7	0.25	7.40
	16	252	705	1225	308	85.0		158	2.7	0.18	6.40
	16	288	805	1325	308	88.0		158	2.1	0.14	5.60
	25	139	505	1025	308	84.0		158	10.4	0.36	8.90
	25	166	605	1125	308	87.0		158	7.2	0.25	7.40
	25	194	705	1225	308	89.0		158	5.3	0.18	6.40
	25	221	805	1325	308	92.0		158	4.0	0.14	5.60
150	16	156	505	1025	334	92.0		187	8.2	0.54	11.90
	16	186	605	1125	334	95.0		187	5.7	0.38	9.90
	16	217	705	1225	334	98.0		187	4.2	0.28	8.50
	16	248	805	1325	334	101.0		187	3.2	0.21	7.40
	25	122	505	1025	334	98.0		187	16.4	0.54	11.90
	25	146	605	1125	334	101.0		187	11.4	0.38	9.90
	25	170	705	1225	334	104.0		187	8.4	0.28	8.50
	25	194	805	1325	334	107.0		187	6.4	0.21	7.40

<sup>1)</sup> Deviation ± 30 %

Reserve the right for technical changes

Flange material:

Standard design permissible up to 300 °C.

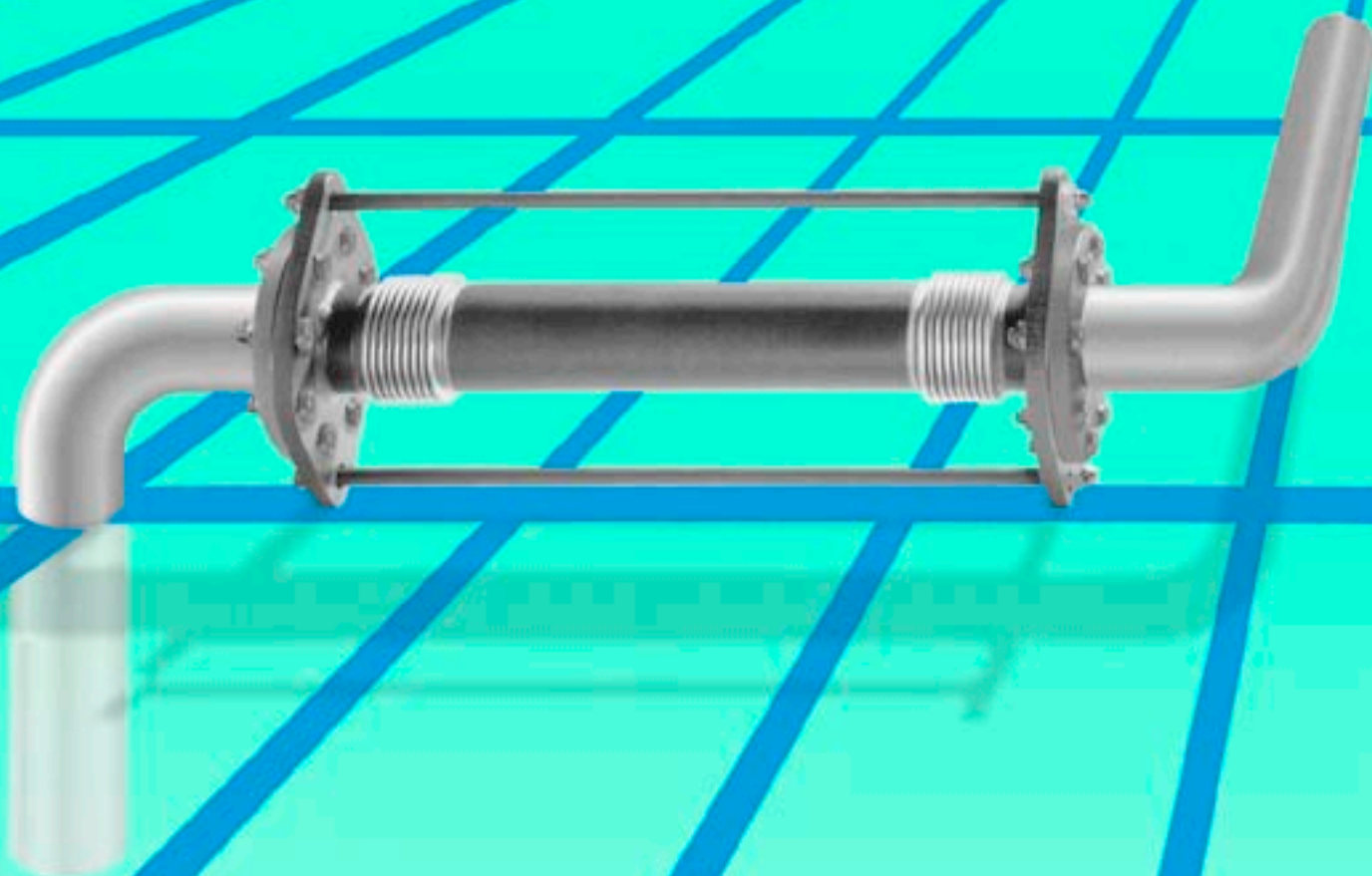
For higher temperature ranges, please make arrangements during ordering.

Reduction factor <sup>2)</sup> for pressure [K <sub>p</sub> ] and movement capacity [K <sub>Δ</sub> ]		
Temperature °C	K <sub>p</sub>	K <sub>Δ</sub>
-10 ... 120	1.00	1.11
150	0.96	1.09
200	0.88	1.06
250	0.80	1.00
300	0.68	0.95
350	0.62	0.93
400	0.50	0.90

<sup>2)</sup> Intermediate values can be linearly interpolated.







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