D100A ⌀ 40 - 1,200 mm

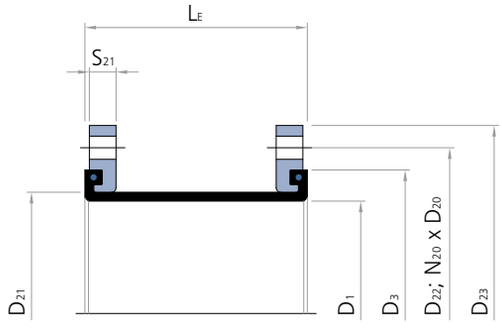
> Type D100A

Type key > page 22

D1 0 0 A

- Tie rod variant
- Support ring variant
- Number of arches
- Type

Cross section D100A



Universal expansion joint without arch

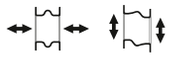
Design: Streamlined, cylindrical rubber bellows with self-sealing rubber bulges, designed to compensate all directional movements, have a cycle life in the tens of millions, constructed with a high-grade leak-proof tube, multiple layers of high-strength cord, a seamless cover, and swivel backing flanges. Optional with embedded support rings. In compliance with PED 2014/68/EU, FSA Technical Handbook and ASTM F1123 - 87.

Diameters: ⌀ 40 to 1,200 mm, custom diameters possible

Length: Standard L_E = 150 to 400 mm (> page 152)
Custom length on request

Pressure: Up to 10 bar depending on diameter and length
Vacuum stability on request

Movement: For small axial and lateral movements

 (> page 152)

Application:
Plant construction, sand/gravel extraction industry, dredgers, food processing e. g. as suction/pressure hoses, in conveying lines, on pumps and vessels

Request assembly instructions at:
www.ditec-adam.de/en/contact

Bellows elastomers and reinforcements

Elastomer	Fabric	Marking	°C	Application
EPDM	Polyamid		-40 | +100	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDM	Aramid		-40 | +100	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDMht	Aramid		-40 | +120	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDMwras	Polyamid		-40 | +100	Drinking water, foodstuffs
EPDMwras	Aramid		-40 | +100	Drinking water, foodstuffs
EPDMbeige	Polyamid		-40 | +100	Foodstuffs
EPDMbeige	Aramid		-40 | +100	Foodstuffs
IIR	Polyamid		-20 | +100	Hot water, acids, bases, gases
IIR	Aramid		-20 | +100	Hot water, acids, bases, gases
CSM	Polyamid		-20 | +100	Strong acids, bases, chemicals
CSM	Aramid		-20 | +100	Strong acids, bases, chemicals
NBR	Polyamid		-30 | +100	Oils, petrol, solvents, compressed air
NBR	Aramid		-30 | +100	Oils, petrol, solvents, compressed air
NBRbeige	Polyamid		-30 | +100	Oil, fatty foods
NBRbeige	Aramid		-30 | +100	Oil, fatty foods
CR	Polyamid		-20 | +90	Cooling water, slightly oily water, seawater
CR	Aramid		-20 | +90	Cooling water, slightly oily water, seawater
FPM	Aramid		-20 | +180	Corrosive chemicals, petroleum distillates
FPMbeige	Aramid		-20 | +180	Oil, fatty foods
NR	Polyamid		-20 | +70	Abrasive materials
Silicon	Aramid Glass		-60 | +200	Air, saltwater atmosphere, foodstuffs, medical technology

Backing flanges

Design: Single-part, swivel, round backing flanges with clearance holes and groove to accept the rubber bulges

Flange norms: DIN, EN, ANSI, AWWA, BS, JIS, special measurements (> page 298)

Materials: Carbon steel, stainless steel

Coating: Primed, hot-dip galvanised, special paint

Accessories

Protective covers: Ground protective shield
Protective shield or cover
Fire protective cover (> page 58)

Flow liners: Cylindrical flow liner
Conical flow liner
Telescoping flow liner (> page 57)

D100A

> without arch

Installation length (L_E) at design pressure

	up to 10 bar L_E = 150 mm					up to 10 bar L_E = 200 mm					up to 10 bar L_E = 250 mm				
	higher pressures on request														
	Movement				A	Movement				A	Movement				A
∅															
mm	mm	mm	±mm	±°	cm²	mm	mm	±mm	±°	cm²	mm	mm	±mm	±°	cm²
40	8	5	12	0	10	10	6	16	0	10	13	8	20	0	10
50	8	5	11	0	16	10	6	15	0	16	13	8	19	0	16
65	8	5	11	0	28	10	6	14	0	28	13	8	18	0	28
80	8	5	10	0	43	10	6	14	0	43	13	8	17	0	43
100	8	5	10	0	69	10	6	13	0	69	13	8	17	0	69
125	8	5	10	0	115	10	6	13	0	115	13	8	16	0	115
150	8	5	9	0	170	10	6	12	0	170	13	8	15	0	170
200	8	5	9	0	278	10	6	12	0	278	13	8	14	0	278
250	8	5	8	0	449	10	6	11	0	449	13	8	14	0	449
300	8	5	8	0	656	10	6	11	0	656	13	8	13	0	656
350	8	5	8	0	855	10	6	10	0	855	13	8	13	0	855
400	8	5	8	0	1,195	10	6	10	0	1,195	13	8	13	0	1,195
450	8	5	7	0	1,514	10	6	10	0	1,514	13	8	12	0	1,514
500	8	5	7	0	1,886	10	6	10	0	1,886	13	8	12	0	1,886
600	8	5	7	0	2,706	10	6	9	0	2,706	13	8	12	0	2,706
700	8	5	7	0	3,750	10	6	9	0	3,750	13	8	11	0	3,750
800	8	5	7	0	4,914	10	6	9	0	4,914	13	8	11	0	4,914
900	8	5	6	0	6,193	10	6	9	0	6,193	13	8	11	0	6,193
1000	8	5	6	0	7,667	10	6	8	0	7,667	13	8	10	0	7,667
1100	8	5	6	0	9,297	10	6	8	0	9,297	13	8	10	0	9,297
1200	8	5	6	0	11,085	10	6	8	0	11,085	13	8	10	0	11,085

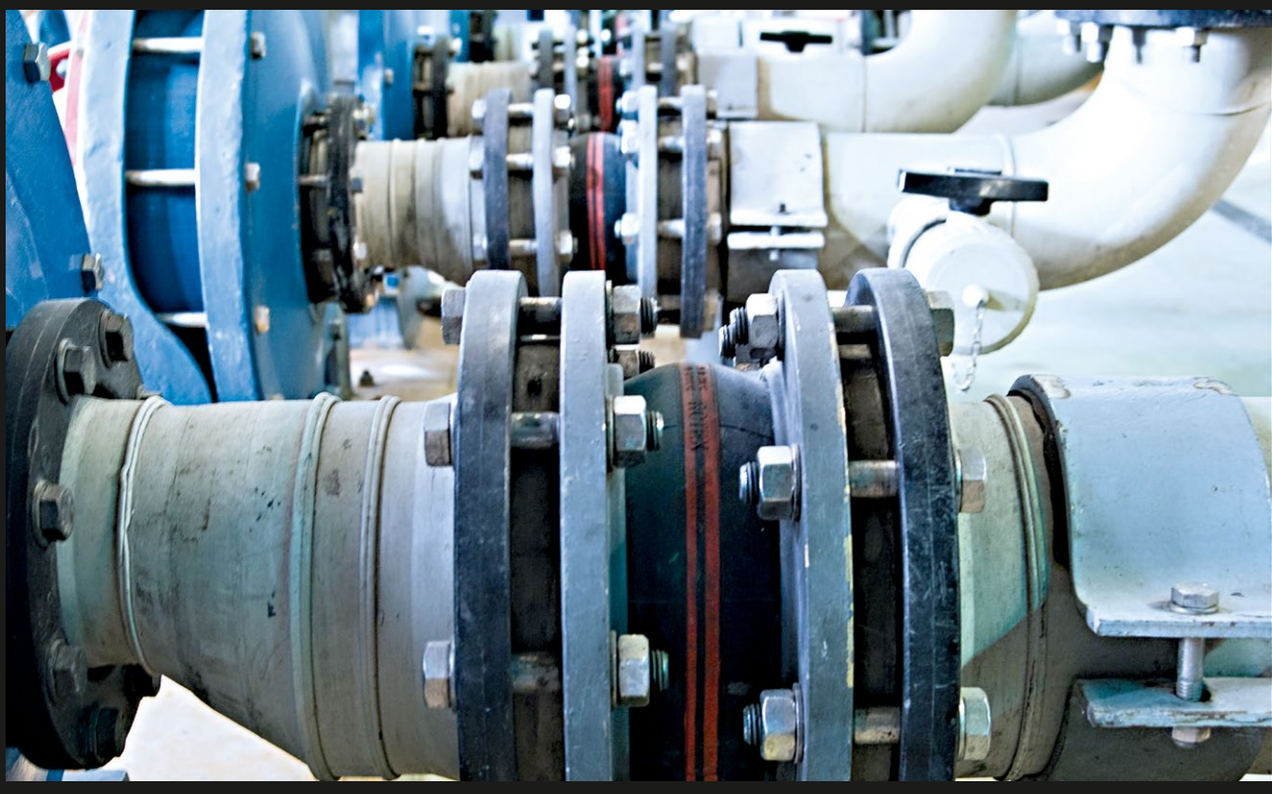
Installation length (L_E) at design pressure

	up to 10 bar L_E = 300 mm					up to 10 bar L_E = 350 mm					up to 10 bar L_E = 400 mm				
	higher pressures on request														
	Movement				A	Movement				A	Movement				A
∅															
mm	mm	mm	±mm	±°	cm²	mm	mm	±mm	±°	cm²	mm	mm	±mm	±°	cm²
40	15	9	24	0	10	18	11	28	0	10	20	12	32	0	10
50	15	9	23	0	16	18	11	27	0	16	20	12	30	0	16
65	15	9	22	0	28	18	11	25	0	28	20	12	29	0	28
80	15	9	21	0	43	18	11	24	0	43	20	12	28	0	43
100	15	9	20	0	69	18	11	23	0	69	20	12	27	0	69
125	15	9	19	0	115	18	11	22	0	115	20	12	25	0	115
150	15	9	18	0	170	18	11	21	0	170	20	12	24	0	170
200	15	9	17	0	278	18	11	20	0	278	20	12	23	0	278
250	15	9	17	0	449	18	11	19	0	449	20	12	22	0	449
300	15	9	16	0	656	18	11	19	0	656	20	12	21	0	656
350	15	9	15	0	855	18	11	18	0	855	20	12	21	0	855
400	15	9	15	0	1,195	18	11	18	0	1,195	20	12	20	0	1,195
450	15	9	15	0	1,514	18	11	17	0	1,514	20	12	20	0	1,514
500	15	9	14	0	1,886	18	11	17	0	1,886	20	12	19	0	1,886
600	15	9	14	0	2,706	18	11	16	0	2,706	20	12	19	0	2,706
700	15	9	13	0	3,750	18	11	16	0	3,750	20	12	18	0	3,750
800	15	9	13	0	4,914	18	11	15	0	4,914	20	12	18	0	4,914
900	15	9	13	0	6,193	18	11	15	0	6,193	20	12	17	0	6,193
1000	15	9	13	0	7,667	18	11	15	0	7,667	20	12	17	0	7,667
1100	15	9	12	0	9,297	18	11	14	0	9,297	20	12	16	0	9,297
1200	15	9	12	0	11,085	18	11	14	0	11,085	20	12	16	0	11,085

For larger movements see type D110A.

The movement capability of the expansion joints given in the tables is determined for flange dimensions according to DIN PN10. In case of deviating flange dimensions, please contact us.

Customised products available



Universal expansion joint, type D110A
on the suction side of quenching water pumps in a waste incineration plant
∅ 150 mm, 16 bar

Single arch swivel flange EPDM rubber expansion joint
to compensate lateral movements of a GRP pipeline