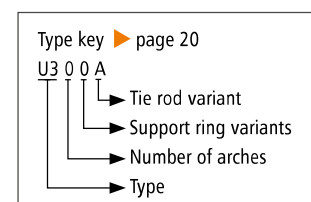


## U300A-konz U300A-exz

NB 80 – NB 1600



### Conical universal expansion joint





















- Design:** Conical-concentric or conical-eccentric rubber bellows with full faced rubber flanges and single or multi-part backing flanges  
In the event of high pressure, large nominal diameters and extreme reductions with self-sealing rubber bulge and single-part swivel backing flange at the large diameter
- Nominal diameters:** NB 80 to NB 1600, intermediate sizes or other nominal diameter combinations possible
- Installation length:** Standard  $L_E = 150$  to 2,150 mm (▶ page 88–89)  
Other installation lengths on request
- Pressure:** Depending on the nominal diameter and installation length up to 10 bar. Design in accordance with Pressure Equipment Directive PED 2014/68/EU
- Movement:** For small axial and lateral movements (▶ page 88–89)

**Application:**  
Plant construction, desulphurisation plants, sand/gravel extraction industry, dredgers, food processing e.g. in gypsum suspension conveyance lines, on pumps, vessels, as vacuum/pressure hoses



Assembly instruction download  
[www.ditec-adam.de/en/downloads.html](http://www.ditec-adam.de/en/downloads.html)

## Rubber bellows

Rubber	Fabric	Marking	Max.	Application
EPDM	Nylon		100 °C	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDM	Kevlar		100 °C	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDMht	Kevlar		120 °C	Cooling water, hot water, seawater, acids, dilute chlorine compounds
EPDMtw	Nylon		100 °C	Drinking water
EPDMtw	Kevlar		100 °C	Drinking water
EPDMaf	Nylon		100 °C	Abrasive materials, water-sand extraction
EPDMaf	Kevlar		100 °C	Abrasive materials, water-sand extraction
EPDMbeige	Nylon		100 °C	Foodstuffs
EPDMbeige	Kevlar		100 °C	Foodstuffs
IIR	Nylon		100 °C	Hot water, acids, bases, gases
IIR	Kevlar		100 °C	Hot water, acids, bases, gases
CSM	Nylon		100 °C	Strong acids, bases, chemicals
CSM	Kevlar		100 °C	Strong acids, bases, chemicals
NBR	Nylon		100 °C	Oils, petrol, solvents, compressed air
NBR	Kevlar		100 °C	Oils, petrol, solvents, compressed air
NBRbeige	Nylon		100 °C	Oil, fatty foods
NBRbeige	Kevlar		100 °C	Oil, fatty foods
CR	Nylon		90 °C	Cooling water, slightly oily water, seawater
CR	Kevlar		90 °C	Cooling water, slightly oily water, seawater
FPM	Kevlar		180 °C	Corrosive chemicals, petroleum distillates
FPMbeige	Kevlar		180 °C	Oil, fatty foods
NR	Nylon		70 °C	Abrasive materials
Silicon	Kevlar or glass		200 °C	Air, saltwater atmosphere, foodstuffs, medical technology

UNIVERSAL  
rubber flange

## Flanges

**Design:** Single or multi-part round backing flanges with clearance holes  
For high pressure, large nominal diameters and extreme reductions, single-part round steel-backing flange with clearance holes and a groove to accommodate a rubber bulge at the large diameter

**Flange norms:** DIN, EN, ANSI, AWWA, BS, JIS, special measurements (▶ page 256)

**Materials:**

- Carbon steel: 1.0038 (S235JRG2)  
1.0570 (S355J2G3)
- Stainless steel: 1.4301 (X5CrNi18-10)  
1.4571 (X6CrNiMoTi17-12-2)
- Aluminium: AlMg3
- Other materials on request

**Coating:** Primed, hot-dip galvanised, special paint

## Optional accessories

**Tie rods:**

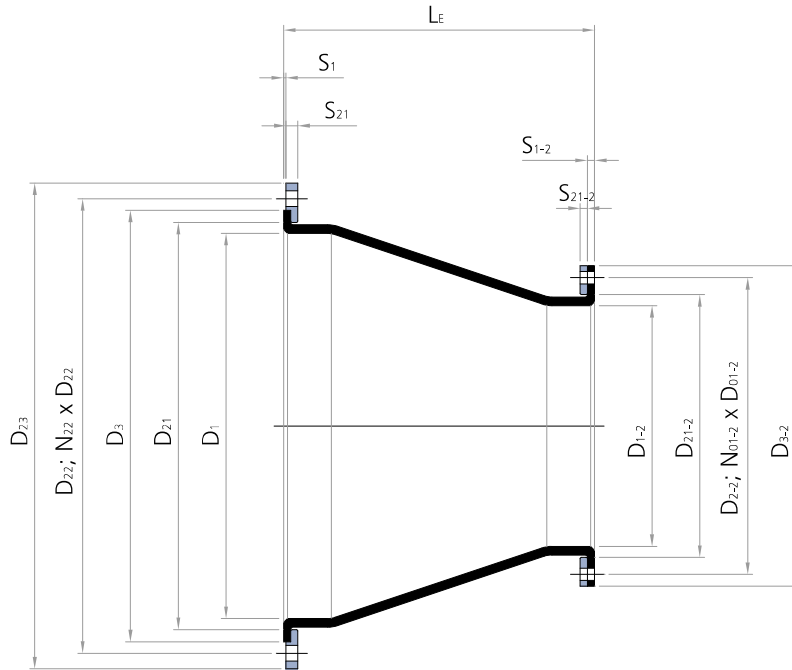
- Type U300E: Tie rods mounted outside in spherical bearings and ball disks to accommodate the reaction forces in the event of pressure
- Type U300M: Tie rods mounted outside and inside in spherical bearings and ball disks to accommodate the reaction forces in the event of pressure and vacuum

**Protective hoods:** UV protection cover, ground protective cover, fire protection cover, splash protective cover (▶ page 44)

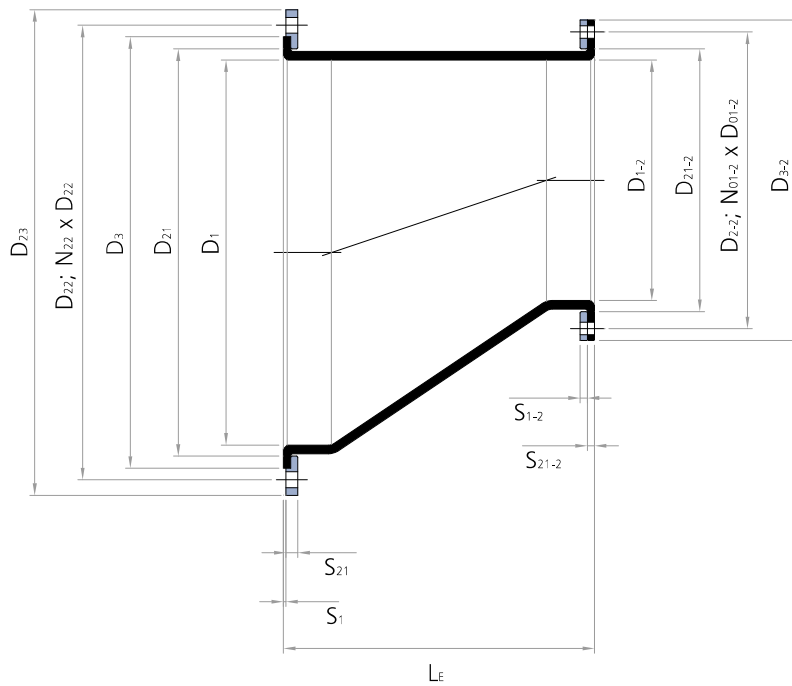
**Flow liners:** Cylindrical flow liner, conical flow liner, telescoping flow liner (▶ page 43)

U300A

Planning help U300A-konz



Planning help U300A-exz



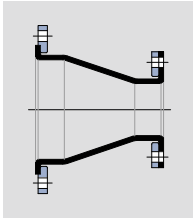


Conical expansion joints, type U300A  
on the suction and discharge side of a gypsum slurry pump  
in a desulphurization unit of a power plant

4.5 bar



Construction of coal fired power plant in Turkey  
ditec supply of rubber and fabric expansion joints



## U300A-konz

► concentric

Installation length (L <sub>E</sub> ) at design pressure					
			up to 6 bar		
			higher pressures on request		
Potential combination			Movement		
NB D <sub>1</sub>	NB D <sub>1-2</sub>	Installation mm			
			mm	mm	±mm
100	80	160	2	2	5
125	80	235	3	2	7
	100	175	2	2	5
150	80	310	4	3	9
	100	250	3	3	7
	125	175	2	2	5
200	80	460	7	5	12
	100	400	6	4	11
	125	325	5	3	9
250	150	250	3	3	7
	80	660	10	7	17
	100	600	9	6	15
300	125	525	8	5	13
	150	450	7	5	11
	200	300	4	3	8
	80	810	12	8	19
350	100	750	12	8	18
	125	675	10	7	16
	150	600	9	6	14
	200	450	7	5	11
	250	350	5	4	8
	80	960	15	10	22
400	100	900	14	9	21
	125	825	13	8	19
	150	750	12	8	17
	200	600	10	6	14
	250	500	7	5	12
	300	350	5	4	8
	100	1050	17	11	23
500	125	975	16	10	22
	150	900	15	9	20
	200	750	12	8	17
	250	650	10	7	15
	300	500	8	5	11
	350	350	5	4	8
	150	1250	21	13	26
600	200	1100	19	11	23
	250	1000	17	10	21
	300	850	14	9	18
	350	700	11	7	15
	400	550	9	6	12
	450	400	6	4	8
	200	1400	25	14	28
700	250	1300	23	13	26
	300	1150	21	12	23
	350	1000	18	10	20
	400	850	15	9	17
	450	700	12	7	14
	500	550	9	6	11
	300	1600	30	16	31
800	350	1450	27	15	28
	400	1300	24	13	25
	450	1150	21	12	22
	500	1000	18	10	19
	550	850	15	9	17
	600	700	12	7	14
	300	1800	35	18	34
900	350	1650	32	17	31
	400	1500	29	15	28
	450	1350	26	14	25
	500	1200	23	12	23
	600	900	16	9	17
	700	600	10	6	11

Installation length (L <sub>E</sub> ) at design pressure					
			up to 6 bar		
			higher pressures on request		
Potential combination			Movement		
NB D <sub>1</sub>	NB D <sub>1-2</sub>	Installation mm			
			mm	mm	±mm
900	350	1950	39	20	36
	400	1800	36	18	33
	450	1650	33	17	30
	500	1500	30	15	27
	600	1200	24	12	22
	700	900	17	9	16
1000	800	600	10	6	11
	400	2100	43	21	37
	450	1950	40	20	35
	500	1800	37	18	32
	600	1500	31	15	27
	700	1200	24	12	21
1100	800	900	17	9	16
	900	600	10	6	11
	450	2300	49	23	40
	500	2150	46	22	37
	600	1850	39	19	32
	700	1550	32	16	27
1200	800	1250	26	13	22
	900	950	18	10	16
	1000	650	11	7	11
	500	2450	53	25	42
	600	2150	47	22	37
	700	1850	40	19	31
1300	800	1550	33	16	26
	900	1250	26	13	21
	1000	950	19	10	16
	1100	650	11	7	11
	600	2450	55	25	41
	700	2150	48	22	36
1400	800	1850	41	19	31
	900	1550	34	16	26
	1000	1250	27	13	21
	1100	950	19	10	16
	1200	650	12	7	11
	700	2500	57	25	41
1500	800	2200	50	22	36
	900	1900	43	19	31
	1000	1600	36	16	26
	1100	1300	28	13	21
	1200	1000	20	10	16
	1300	700	12	7	11
1600	800	2500	59	25	40
	900	2200	51	22	35
	1000	1900	44	19	31
	1100	1600	36	16	26
	1200	1300	29	13	21
	1300	1000	21	10	16
900	1400	700	12	7	11
	900	2500	60	25	40
	1000	2200	53	22	35
	1100	1900	45	19	30
	1200	1600	37	16	25
	1300	1300	29	13	21
1400	1000	1000	21	10	16
	1500	700	13	7	11

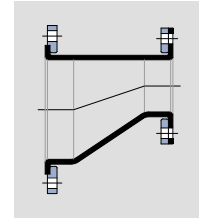
The specified movements may vary depending on the design pressure.  
Also available with length limitors "E" or tie rod design "M"  
Intermediate sizes or other nominal diameter combinations as well as other installation length on request.

**Individual fabrication possible**



# U300A-exz

► eccentric



Installation length (L <sub>E</sub> ) at design pressure					
			up to 6 bar		
			higher pressures on request		
Potential combination			Movement		
NB D <sub>1</sub>	NB D <sub>1-2</sub>	Installation-mm			
			mm	mm	± mm
100	80	160	2	2	5
125	80	235	3	2	7
	100	175	2	2	5
150	80	310	4	3	9
	100	250	3	3	7
	125	175	2	2	5
200	80	460	7	5	12
	100	400	6	4	11
	125	325	5	3	9
	150	250	3	3	7
250	80	660	10	7	17
	100	600	9	6	15
	125	525	8	5	13
	150	450	7	5	11
	200	300	4	3	8
300	80	810	12	8	19
	100	750	12	8	18
	125	675	10	7	16
	150	600	9	6	14
	200	450	7	5	11
	250	350	5	4	8
	350	80	960	15	10
100		900	14	9	21
125		825	13	8	19
150		750	12	8	17
200		600	10	6	14
250		500	7	5	12
300		350	5	4	8
400		100	1050	17	11
	125	975	16	10	22
	150	900	15	9	20
	200	750	12	8	17
	250	650	10	7	15
	300	500	8	5	11
	350	350	5	4	8
500	150	1250	21	13	26
	200	1100	19	11	23
	250	1000	17	10	21
	300	850	14	9	18
	350	700	11	7	15
	400	550	9	6	12
	450	400	6	4	8
600	200	1400	25	14	28
	250	1300	23	13	26
	300	1150	21	12	23
	350	1000	18	10	20
	400	850	15	9	17
	450	700	12	7	14
	500	550	9	6	11
700	250	1600	30	16	31
	300	1450	27	15	28
	350	1300	24	13	25
	400	1150	21	12	22
	450	1000	18	10	19
	500	850	15	9	17
	600	550	9	6	11
800	300	1800	35	18	34
	350	1650	32	17	31
	400	1500	29	15	28
	450	1350	26	14	25
	500	1200	23	12	23
	600	900	16	9	17
	700	600	10	6	11

Installation length (L <sub>E</sub> ) at design pressure					
			up to 6 bar		
			higher pressures on request		
Potential combination			Movement		
NB D <sub>1</sub>	NB D <sub>1-2</sub>	Installation-mm			
			mm	mm	± mm
900	350	1950	39	20	36
	400	1800	36	18	33
	450	1650	33	17	30
	500	1500	30	15	27
	600	1200	24	12	22
	700	900	17	9	16
1000	800	600	10	6	11
	400	2100	43	21	37
	450	1950	40	20	35
	500	1800	37	18	32
	600	1500	31	15	27
	700	1200	24	12	21
1100	800	900	17	9	16
	900	600	10	6	11
	450	2300	49	23	40
	500	2150	46	22	37
	600	1850	39	19	32
	700	1550	32	16	27
	800	1250	26	13	22
1200	900	950	18	10	16
	1000	650	11	7	11
	500	2450	53	25	42
	600	2150	47	22	37
	700	1850	40	19	31
	800	1550	33	16	26
	900	1250	26	13	21
	1000	950	19	10	16
1300	1100	650	11	7	11
	600	2450	55	25	41
	700	2150	48	22	36
	800	1850	41	19	31
	900	1550	34	16	26
	1000	1250	27	13	21
	1100	950	19	10	16
	1200	650	12	7	11
1400	700	2500	57	25	41
	800	2200	50	22	36
	900	1900	43	19	31
	1000	1600	36	16	26
	1100	1300	28	13	21
	1200	1000	20	10	16
	1300	700	12	7	11
	1500	800	2500	59	25
900		2200	51	22	35
1000		1900	44	19	31
1100		1600	36	16	26
1200		1300	29	13	21
1300		1000	21	10	16
1400		700	12	7	11
1600		900	2500	60	25
	1000	2200	53	22	35
	1100	1900	45	19	30
	1200	1600	37	16	25
	1300	1300	29	13	21
	1400	1000	21	10	16
	1500	700	13	7	11

The specified movements may vary depending on the design pressure.

Individual fabrication possible