

# RUBBER COMPENSATOR

## AL 84-A-1 / AL 84-A-2 / AL 84-A-4

### Description

AL 84-A is rubber expansion joints with vulcanised rubber bellows reinforced with textile cords. The flanges are designed with stabilizing collars for best performance and longevity of the bellows.

**Applications:** For simple to demanding industrial applications where you want to compensate for axial, radial, angle and lateral pipe forces due to mechanical and thermal tension, and for damping vibrations and noise around the pumps and machinery. Suitable for pressure and vacuum with aggressive and neutral liquids and gases which are compatible with rubber material as described below.

**Type:** AL 84-A-1 Standard  
AL 84-A-2 With extension rods  
AL 84-A-4 With rods for compression and extension

**Marking:** Marked with A1/A2/A4.  
**Dimensions:** DN 40-600  
**Pressure:** 16 bar (see pressure/temperature)

**Temperature:** Max +100°C  
**Burst pressure:** ≥ 48 bar  
**Vacuum:** ≥ 0,05 bar abs. with vacuum support ring from DN 65 (optional)

### Material

Rubber	Colour code	Application
EPDM	Orange	Hot water resistant, acid resistant
Nitril	Red	Oil
Butyl	White	For drinking water

### Flanges

**Dimensions** DN 50-150 - PN 16  
DN 200-600 - PN 10

**Material** Carbon steel 1.0038

**Corrosion protection** DN 20-300 electrogalvanized  
DN 350-600 anti-corrosion

### Extension rods - A-2 / A-4

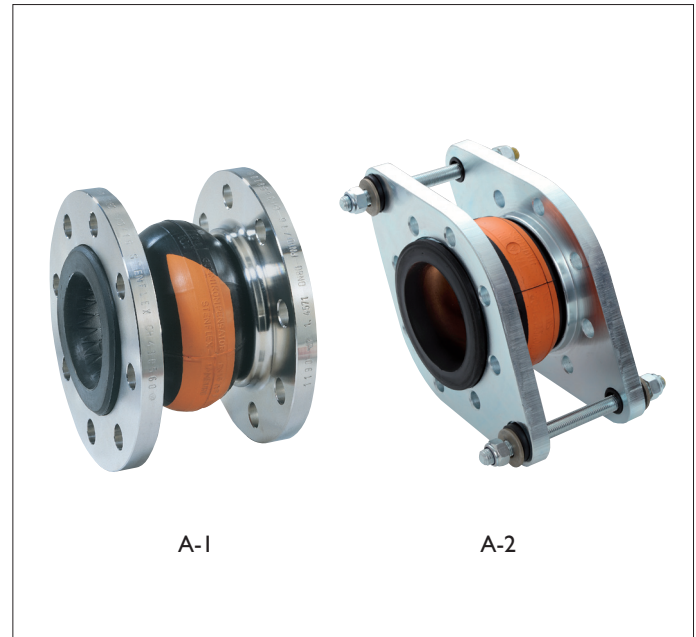
DN 50-150 - Extension rods with rubber bushings  
DN 200-600 - Extension rods with conical washers

### Pressure / Temperature

Maximum working pressure is limited by the pressure class and vary with operating temperature as below.

Temperature °C	20	30	40	50	60	70	80	90	100	110	120	130
<b>Bar</b>	16	16	16	16	16	14	11	6	6*	-	-	-

\*\* Only a shorter time



### Approvals

- CE/PED 97/23
- Bureau Veritas
- Det Norske Veritas
- Germanischer Lloyd
- Lloyd's register of Shipping
- TÜV

### Optional

- Vacuum support ring
- Other dimensions
- From DN 200 also in higher pressure class

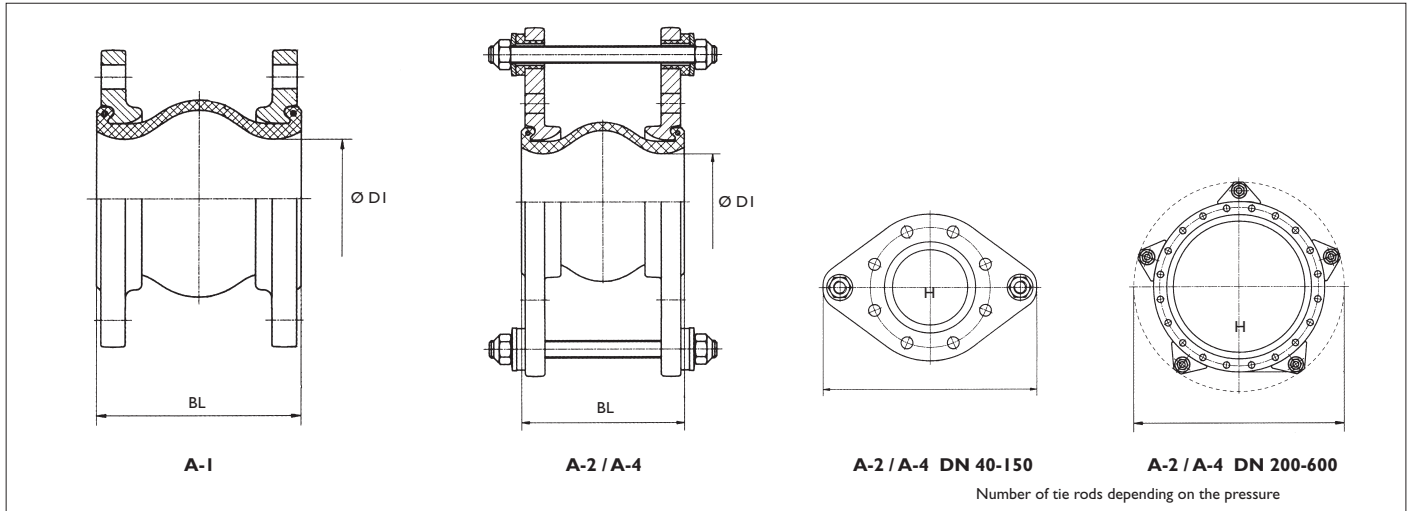
### Installation

Can be installed in horizontal or vertical lines. Installation according to supplied installation instructions. Rubber bellows must not be exposed to chemicals that affect the properties of rubber, movements and forces that exceed the maximum values or mechanical damage of flange bolts, etc. If necessary, use pipe supports or required length limitations.

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## AL 84-A-1 / AL 84-A-2 / AL 84-A-4

### Dimensions



DN	BL mm	Max. pressure bar PN	Ø DI Bellow inner ø mm	Δ Axial movement		Δ Lateral movement ± mm	Δ Angular movement ± ↻ degree	H mm (refers to A2 / A4)	Weight, kg	
				Compression - mm	Elongation + mm				A1	A2 / A4
40	125	16	40 ± 3	35	10	15	25	220	4,3	5,7
50	125	16	52 ± 3	35	10	15	21	230	4,5	6,9
65	125	16	68 ± 3	35	10	15	17	260	4,8	8,4
80	150	16	80 ± 3	40	10	15	14	280	5,7	9,3
100	150	16	101 ± 3	40	10	15	11	320	7,2	11,1
125	150	16	128 ± 4	40	10	15	9	350	9	14,3
150	150	16	154 ± 4	40	10	15	7	400	10,6	17,3
200	175	10	203 ± 5	45	15	15	8	440	18,7	23,7
250	175	10	253 ± 5	45	15	15	6	505	23,5	27,9
300	200	10	304 ± 5	45	15	15	5	560	30	34,5
350	200	10	345 ± 5	45	15	15	4	620	40	47,5
400	200	10	400 ± 5	45	15	15	4	680	49	57,5
450	250	10	435 ± 8	50	30	30	7	820	64	88
500	250	10	485 ± 8	50	30	30	6	895	72	96
600	250	10	585 ± 8	50	30	30	5	1020	90	114

From DN 200 maximum pressure 16 bar also with flanges PN 16.