



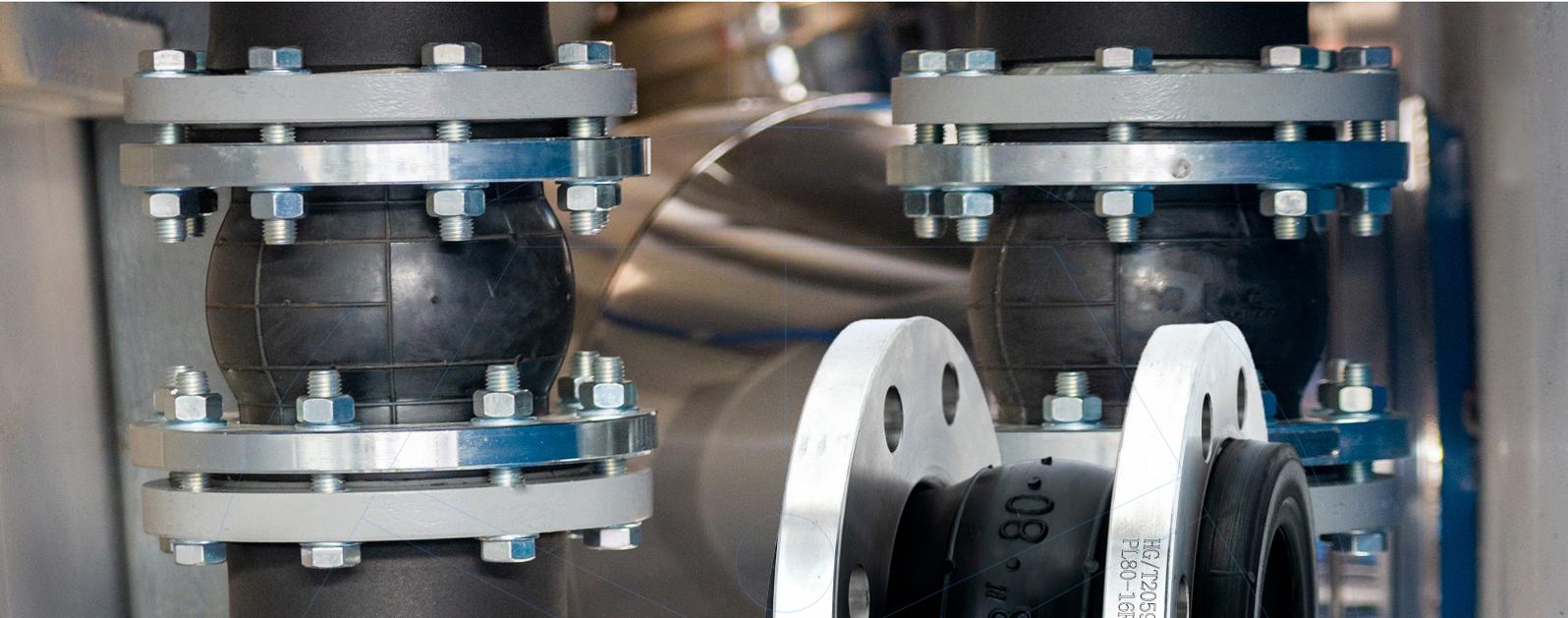
DAVINCI TECHNICAL DATA GUIDE

# RUBBER EXPANSION JOINTS

## SINGLE SPHERE FLANGED ENDS

Ref. 221A-MC / PN 10-16

CE



### Application

Heating and HVAC systems.  
Cooling and overheated water circuits.  
Pumping stations.  
Compressor connections.  
Industrial and marine piping systems.

### Approvals/Standards

Flanges according to ISO 7005-1.  
Mounting between flanges: PN10/16 EN 1092-2, ISO 7005-2.  
Pressure Tests acc. to EN 12266-1 Rate A. GB/T13927-1992  
Pressure Tests: Body: 1,5 x PN. Seat: 1,1 x PN  
Products excluded from directive directive 2014/68/EU Equipment under pressure (Article 4&3).

### Certifications

CE

### Range

DN32-600, PN10-16



## GENERAL CHARACTERISTICS

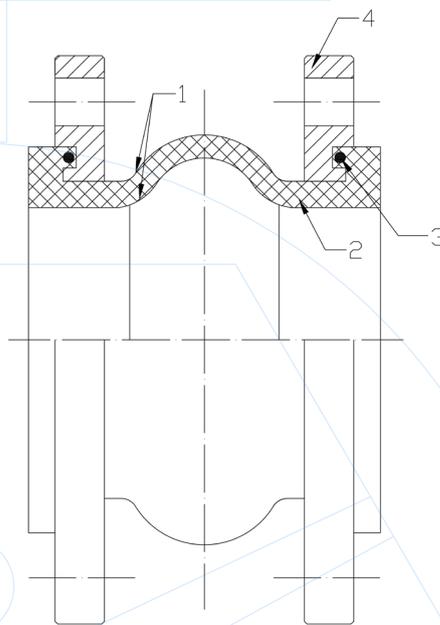
Range from DN32 up to DN600  
 Full bore.  
 Minimum head loss.  
 Designed to absorb vibration and noises in fluid conduction pipelines.  
 Made with a special moulding technique using synthetic fiber of high resistance to reinforce the body, can support a braking pressure of more than 60 bar, even if the usual working pressure is not above 16 bar.  
 Installation in horizontal and vertical position.

## WORKING CONDITIONS

Maximum working pressure: 16 bar.  
 Working pressure: 10 bar.  
 Working temperature: -5°C +105°C (for EPDM).  
 Suitable media: water.  
 Consult factory for other applications.

Nº	ITEM	MATERIAL
1	Body	EPDM + cord fabric
2	Flanges	Steel Q235
3	Reinforcing ring	Steel wire

Material code	Material	Highest Temp.
1	Butile	90°C
2	EPDM	105°C
3	Hypalon	100°C
4	Neoprene	90°C
5	NBR	90°C



*Components may be replaced with materials of equivalent or superior grade without prior notice, in accordance with our continuous improvement policy.*

### TEMPERATURE/PRESSURE RATE FOR EPDM

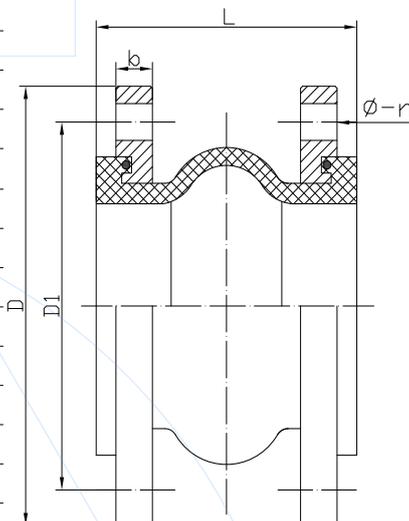
DN	Highest temperature and working pressure					
	80°C	85°C	90°C	95°C	100°C	105°C
32 - 300	15 bar	12 bar	10 bar	7 bar	4 bar	2 bar
300 - 600	10 bar	8 bar	7 bar	5 bar	2 bar	1 bar





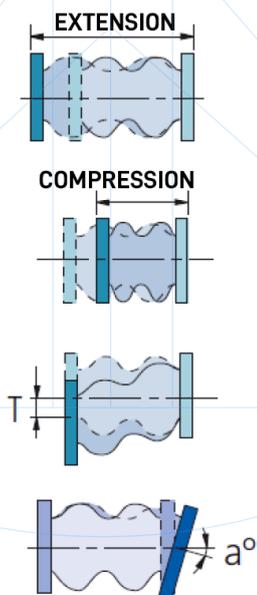
## DIMMENSIONS

DN	L	D		D1		b		n-Ød		Weight (kg)
		PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	
32	95	140		100		14		4-18		2.6
40	95	150		110		14		4-18		3.1
50	105	165		125		15		4-18		4.2
65	115	185		145		15		4-18		5.2
80	130	200		160		17		8-18		6.2
100	135	220		180		17		8-18		7.5
125	150	250		210		19		8-18		10.3
150	180	285		240		19		8-22		12.8
200	205	340		295		21		8-22	12-22	18.6
250	240	395	405	350	355	23		12-22	12-26	27.2
300	260	445	460	400	410	22	24	12-22	12-26	34.5
350	280	505	520	460	470	22	26	16-22	16-26	45.6
400	255	565	580	515	525	22	28	16-26	16-30	59.4
450	250	615	640	565	585	22	28	20-26	20-30	68
500	255	670	715	620	650	24	30	20-26	20-30	90.2
600	260	780	840	725	770	23	31	20-30	20-36	122.5



The designs, materials and technical specifications indicated herein are subject to modification without prior notice, as part of the continuous development of our manufacturing programme, product refinement and technological advancement.

DN	Allowed movement			
	Exten.	Compr.	Transv.	Angle
32	6	9	9	15°
40	6	10	10	15°
50	7	10	10	15°
65	7	13	11	15°
80	8	15	12	15°
100	10	19	13	15°
125	12	19	14	15°
150	12	25	14	15°
200	12	25	22	15°
250	16	25	22	15°
300	16	25	22	15°
350	16	25	22	15°
400	16	25	22	15°
450	16	25	22	15°
500	16	25	22	15°
600	16	25	22	15°



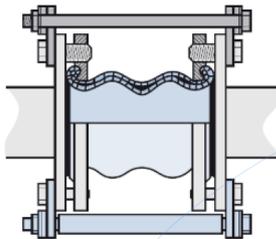


# SECURITY TIE RODS

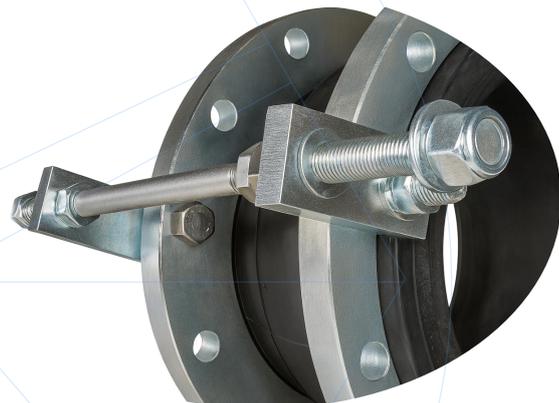
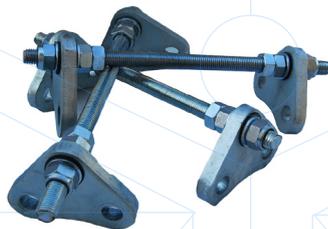
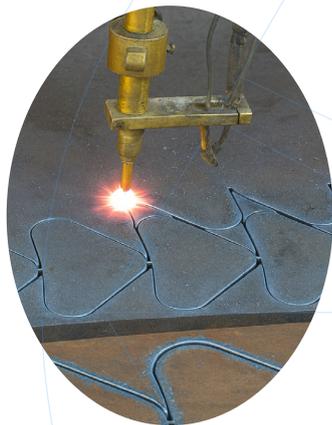
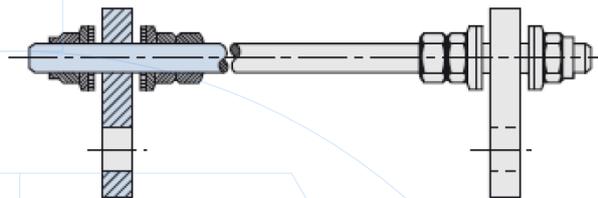
## NEED FOR SECURITY TIE RODS BASED ON WORKING PRESSURE

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
PRESSURE (BAR)	15	15	15	15	10	10	10	7	7	7	7	5	5	5	5

Assembly position



Tie rods include nuts and washers



## CERTIFICATES

Verification - Верификация - 验证 - Verification - 증명서 - 验证

Form GAT\_10-MOS, version 02, effective since October 07th, 2022

### VERIFICATION

No. 3N240126.DV0511  
Test Report / Technical Construction File no. B-5240281091

**Verification's Holder:** DAVINCI VALVES  
18 Dongyu Street, Square One 11th Floor 1101, Jinjiang District, Chengde, Sichuan, China

**Verification ECM Mark:**

**Product:** DISMANTLING JOINTS DUCTILE IRON  
**Model(s):** DN50-DN2000 PN10-PN25

**Verification for:** Standard: EN 5452010  
related to CE Directive(s): 2014/68/EU (Pressure Equipment)

**This document has been issued in accordance with the European Commission's note of 14 September 2022 ref. Ares (2022) 6342874 concerning voluntary certifications with non-notified procedure and for products intended for third countries outside the EU market.**

The manufacturer has voluntarily decided to submit its documents concerning the above-mentioned product for verification. Ente Certificazione Macchine certifies that the documentation made available and immediately returned to it, as containing sensitive data, meets the essential requirements of the abovementioned directives. The verification activity carried out exclusively concerned the technical documentation and no verification was carried out on the product. This document cannot replace the EC Declaration of Conformity. The above conformity assessment is limited to the technical documentation in accordance with the ECM regulation on its issue and use, published on the website [www.entecerma.it](http://www.entecerma.it)

**Issuance date:** 28 January 2024  
**Expiry date:** 25 January 2029

For online check:

Approver:  
Ente Certificazione Macchine  
Legal Representative:  
Lucia Scavone

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CONTACT US

# DAVINCI GATE VALVES ORDER REQUEST

Ref. 221A-MC / PN 10-16



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