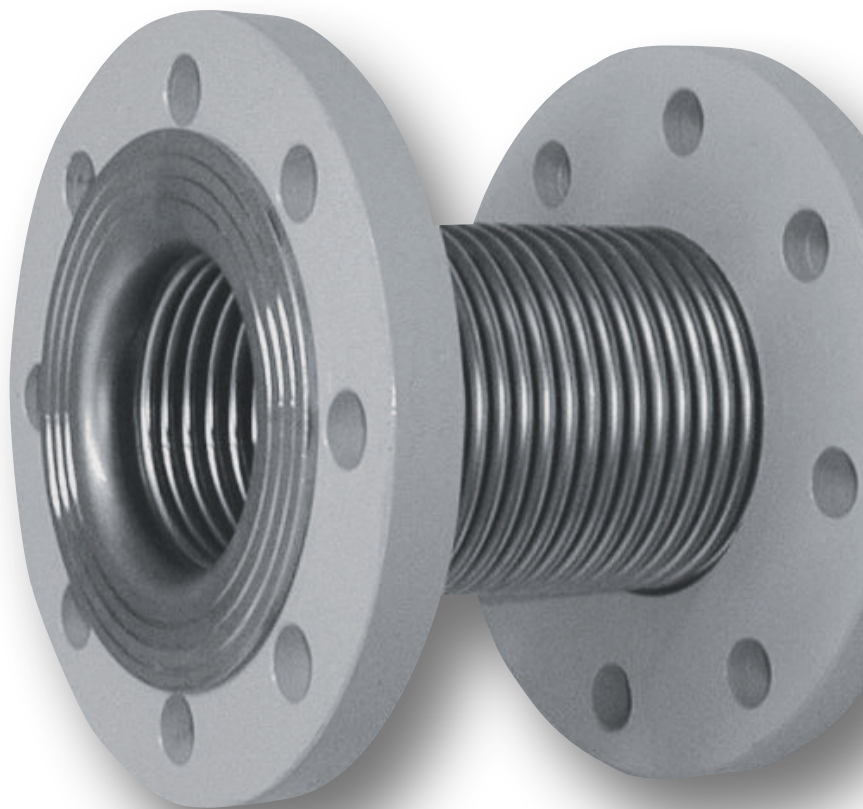


GA-GAF Series

Vibration-damping joints for gas systems

Technical Data Sheet



Description

Vibration-damping and compensation joints of the **GA-GAF Series** are suitable for installation on the fuel line of gas burners, including multi fuel and combination types.

Vibration-damping joints are manufactured to the specifications of DIN 30681 standards and tested in accordance with ISO 10380 standards on corrugated metal hoses. They are also certified under the Pressure Equipment Directive ("PED" - 2014/68/EU). Joints of the **GA Series**, with threaded connections, are made entirely of stainless steel (grade 304 for threaded sleeves, grade 321 for bellows).

Flanged joints of the **GAF Series** have flanges of carbon steel and bellows of stainless steel (grade 321). In any event, parts in contact with the gas are always stainless steel, as required by DIN standards. The adoption of floating flanges makes for maximum ease of assembly, since being freely rotatable, the holes can be aligned faultlessly with those of the pipeline flanges, thereby avoiding possible torsional damage to the bellows.

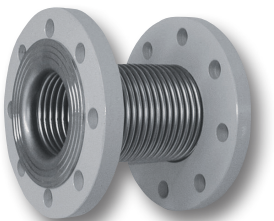
GA



Vibration-damping expansion joint for gas systems. Stainless steel body, carbon steel flanges. Threaded connections (DN 1/2"-2"). PN 3. Operating temperature range: -20 ÷ 60°C.

Type	Part Number	DN	Weight (kg)
GA1556	008.0070.000	1/2"	0.107
GA1544	008.0071.000	3/4"	0.172
GA1545	008.0072.000	1"	0.272
GA1546	008.0073.000	1.1/4"	0.501
GA1547	008.0074.000	1.1/2"	0.572
GA1548	008.0075.000	2"	0.699

GAF



Vibration-damping expansion joint for gas systems. Stainless steel body, carbon steel flanges. Flanged connections (DN 65-150). PN 3. Operating temperature range: -20 ÷ 60°C.

Type	Part Number	DN	Weight (kg)
GAF212	008.0080.000	DN 65	6.447
GAF300	008.0081.000	DN 80	7.623
GAF400	008.0082.000	DN 100	9.602
GAF500	008.0083.000	DN125	13.19
GAF600	008.0084.000	DN150	16.306

GA joint materials

Threaded sleeves	Grade 304 stainless steel
Bellows	Grade 321 stainless steel

GAF joint materials

Flanges	Carbon steel
Bellows	Grade 321 stainless steel

Approvals

Vibration-damping joints of the **GA-GAF Series** comply with the following Directives:

- Pressure Equipment Directive (PED) 2014/68/EU;
- Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU, concerning restrictions on the use of certain hazardous substances in electrical and electronic equipment.

Vibration-damping joints of the **GA-GAF Series** with connections from 1"1/4 to DN 150 are certified as category II pressure accessories (Annex II point 3 of Directive 2014/68/EU) according to the procedure of module D1.

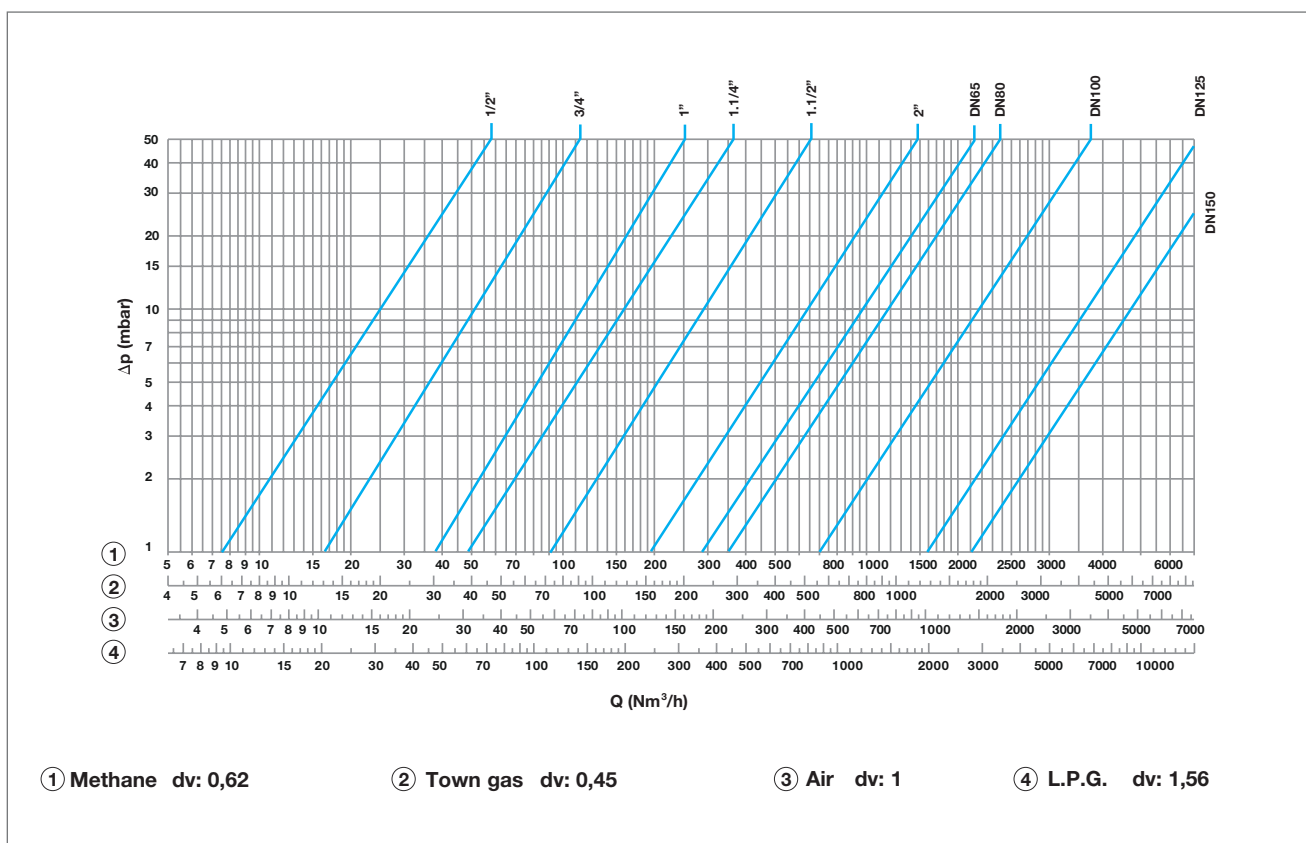
The product is manufactured to the following standards:

- DIN 30681 - "Kompensatoren für Gasanlagen Stahlbag-Kompensatoren";
- UNI EN ISO 10380 - design, manufacture and testing of corrugated metal hoses.

Additional standard applied (Italian market only): Ministerial Decree n° 37 of 22 January 2008 - "Building and installation of systems" (Art. 6).



Charts



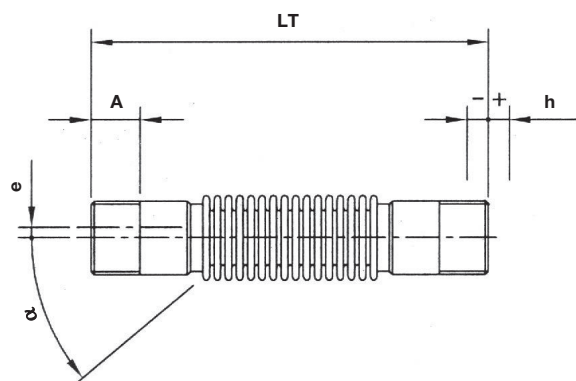
Installation

Joints can be installed in any position. When installing threaded models, use an ordinary pipe wrench, in combination with a second wrench if the threaded sleeve is to be connected to a screw fitting. The bellows must not be subjected to torsional stresses. Before installation, check that any axial, angular or lateral misalignments of pipelines are within the maximum values indicated in the tables, allowing also for thermal expansion of the pipes, verified by calculation. It is also especially important to take account of pressure; to ensure that the joint will not undergo excessive deformation, support the pipelines by way of suitable sliding mounts anchored to the floor or to the wall.

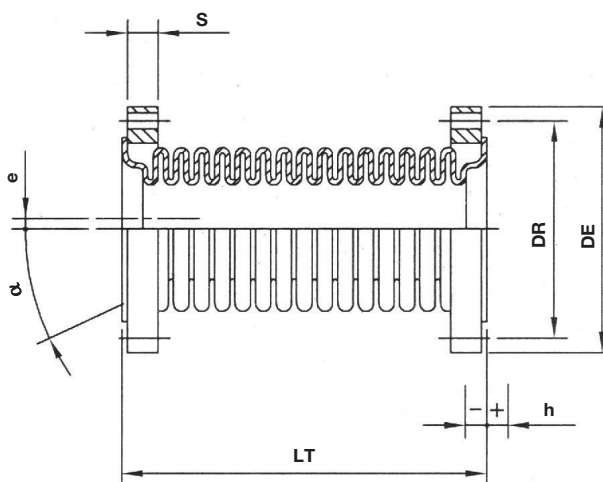
All installation and maintenance operations must be entrusted exclusively to skilled fitters.

Overall dimensions (mm)

GA



GAF



Mod.	DN UNI EN 10226-1	P. max (bar)	Temp. (°C)	Axial compensation (h+) (h-) (h tot.)			Angular (α±)	Lateral (e±)	Dimensions (A) (LT±5)	
GA1556	1/2"	3	-20÷60	10	10	20	35	5	18	170
GA1544	3/4"	3	-20÷60	10	10	20	30	5	18	180
GA1545	1"	3	-20÷60	10	10	20	25	6	22	200
GA1546	1 1/4"	3	-20÷60	12	12	24	35	10	24	220
GA1547	1 1/2"	3	-20÷60	15	15	30	35	10	24	240
GA1548	2"	3	-20÷60	15	15	30	30	10	28	240

Mod.	DN ISO 7005-2	PN ISO 7005-2	P. max (bar)	Max. (°C)	Axial compensation (h+) (h-) (h tot.)			Angular (α±)	Lateral (e±)	Dimensions (DE) (DR) (LT±5) (S)			
GAF212	65	16	3	-20÷60	20	20	40	20	10	185	145	150	18
GAF300	80	16	3	-20÷60	20	20	40	20	10	200	160	160	20
GAF400	100	16	3	-20÷60	20	20	40	20	10	220	180	170	23
GAF500	125	16	3	-20÷60	25	25	50	4	6	250	210	240	24
GAF600	150	16	3	-20÷60	25	25	50	4	6	285	240	240	24

Specification text

GA-GAF Series

GA-GAF Series vibration-damping expansion joint - WATTS brand - for gas systems. Body stainless steel, flanges carbon steel. Threaded connections (DN 1/2"-2") and flanged connections (DN 65-150). PN 3.

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