

U/V-FLEX OMEGA LOOP EXPANSION JOINTS



U/V-Flex omega loop is designed to absorb unexpected, random dynamic loads that may occur in earthquake-prone regions, as well as to relieve vibration loads on the line, ensuring that the pipeline system works without any disruption.

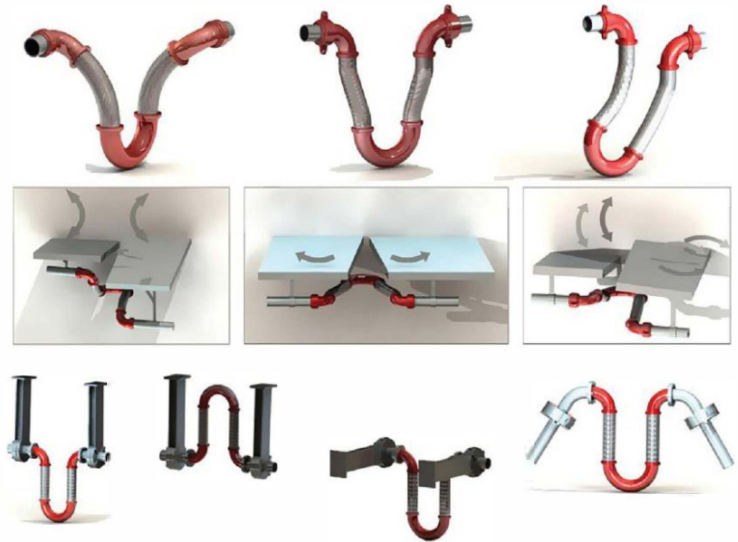
U/V-Flex omega loop ducts are used for heating, air conditioning, water supply, ventilation, gas processing, petrochemical industry, shipbuilding, oil drilling, food processing, truck exhaust, and other fields. Connection to pipes, air conditioning, water, fan, etc.

Advantage of our products:

Compensation for temperature expansion of straight sections of the pipeline;
Connection of pressure and suction pipelines to various units (pumps, turbines, compressors, engines, etc.);
transportation of steam, hot or cold water, gases, including natural, chemicals and petroleum products in areas of increased seismic activity.

360° Capable of movement in all directions.

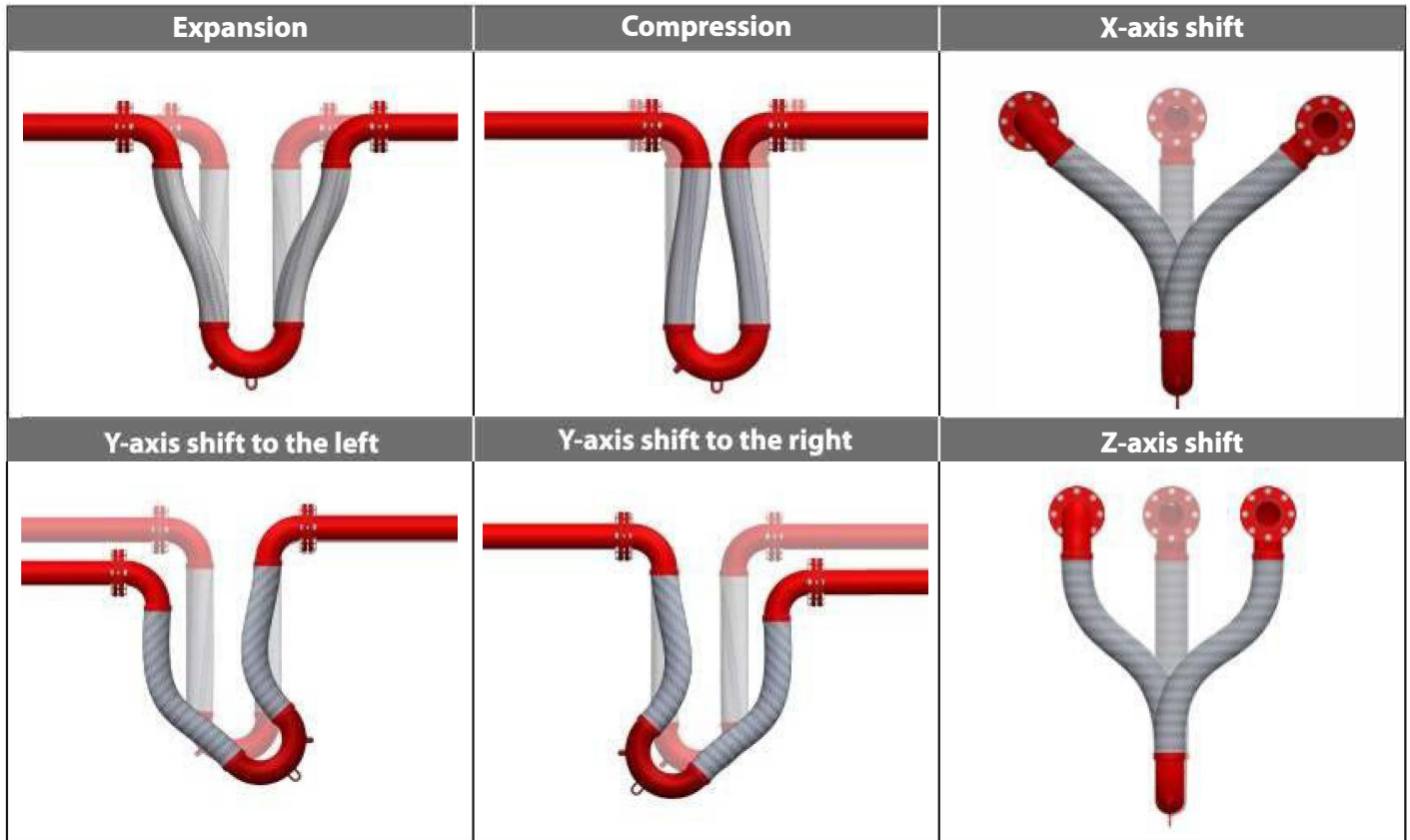
Easy to install. Only one hanger and two end connections that simplify piping design and eliminate the need for multiple, tangled joints or grooved joints made on site.



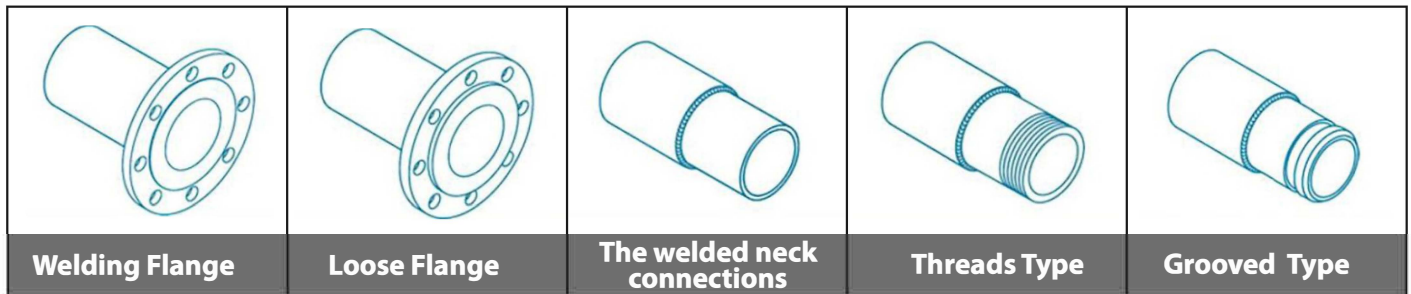
Application Area:

Fire safety lines;
Places of dilatation crossings;
Industrial pipeline systems;
Pipeline lines laid in tunnels;
Drains of bridges and transport interchanges.

The types of compensated displacement of the pipeline



Variants of the expansion joint connecting elements



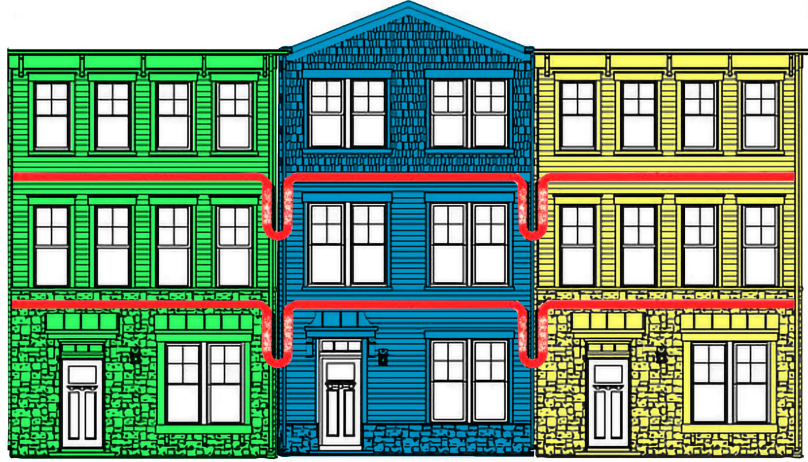
U/V-Flex Omega Loop Material Specifications

Hose Material	AISI304 - AISI321 Grade Staninless Steel
Braid Material	AISI 304 Stainless steel
Connections	Carbon steel- Stainless steel
Nominal Diameter	DN25 (1") - DN200 (8")
Operating Temperature	-90 °C / +600 °C
Working Pressure	PN16, 250 psi
Connection Types	Flanged, Welding Neck, Grooved, Threaded



Building with Totflex U -Flex Omega Loop Expansion Joints

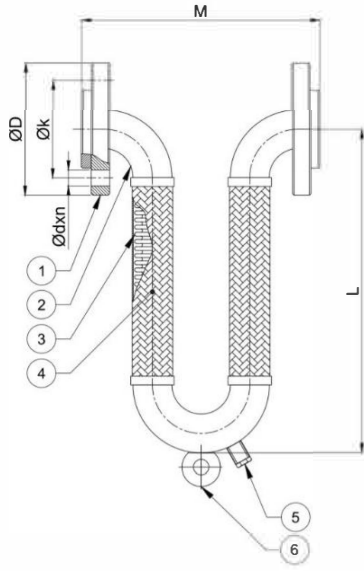
Before Seismic Effects



After Seismic Effects



U-FLEX OMEGA LOOP EXPANSION JOINT | FLANGED



Part Number	Properties	
	Part name	Material
1	Flange (PN16) ANSI-JIS Op	S235JR / AISI 304-316 Op
2	Elbow 90°	S235JR / AISI 304-316 Op
3	Metal Hose	AISI 304 / AISI 316-321 Op
4	Braiding	AISI 304 / AISI 316-321 Op
5	Drain Plug	GG25 / AISI 304-316 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

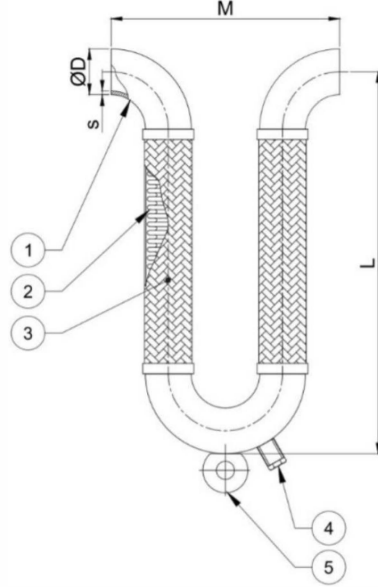
Connection Dia	Dimensions			Expansions x,y,z							
				±50mm		±100mm		±150mm		±200mm	
DN	ØD	ØK	Ød2xn	M	L	M	L	M	L	M	L
25	115	85	14x4	254	375	254	500	254	510	254	585
32	140	100	18x4	302	400	302	525	302	566	302	635
40	150	110	18x4	340	425	340	575	340	625	340	685
50	165	125	18x4	426	475	426	625	426	680	426	760
65	185	140	18x8	522	525	522	700	522	770	522	865
80	200	160	18x8	610	575	610	750	610	865	610	940
100	220	180	18x8	792	700	792	875	792	990	792	1090
125	250	210	18x8	954	800	954	1000	954	1120	954	1220
150	285	240	22x8	1106	925	1106	1150	1106	1295	1106	1395
200	340	295	22x12	1432	1200	1432	1450	1432	1650	1432	1780

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

U-FLEX OMEGA LOOP EXPANSION JOINT | WELDING ENDS



Part Number	Properties	
	Part name	Material
1	Elbow 90°	S235JR / AISI 304-316 Op
2	Metal Hose	AISI 304 / AISI 316-321 Op
3	Braiding	AISI 304 / AISI 316-321 Op
4	Drain Plug	GG25 / AISI 304-316 Op
5	Fixing Part	S235JR / AISI 304 -316 Op

(Op.) = Optional

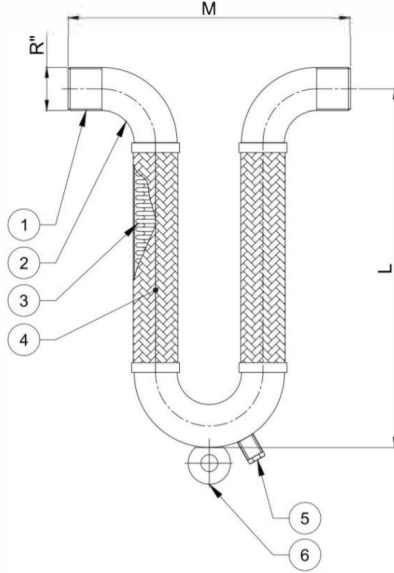
Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	115	152	375	152	500	152	510	152	585
32	140	190	400	190	525	190	566	190	635
40	150	228	425	228	575	228	625	228	685
50	165	304	475	304	625	304	680	304	760
65	185	380	525	380	700	380	770	380	865
80	200	458	575	458	750	458	865	458	940
100	220	610	700	610	875	610	990	610	1090
125	250	762	800	762	1000	762	1120	762	1220
150	285	914	925	914	1150	914	1295	914	1395
200	340	1220	1200	1220	1450	1220	1650	1220	1780

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

U-FLEX OMEGA LOOP EXPANSION JOINT | THREADED END



Part Number	Properties	
	Part name	Material
1	Threaded Part	S235JR / AISI 304-316 Op
2	Elbow 90°	S235JR / AISI 304-316 Op
3	Metal Hose	AISI 304 / AISI 316-321 Op
4	Braiding	AISI 304 / AISI 316-321 Op
5	Drain Plug	GG25 / AISI 304-316 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

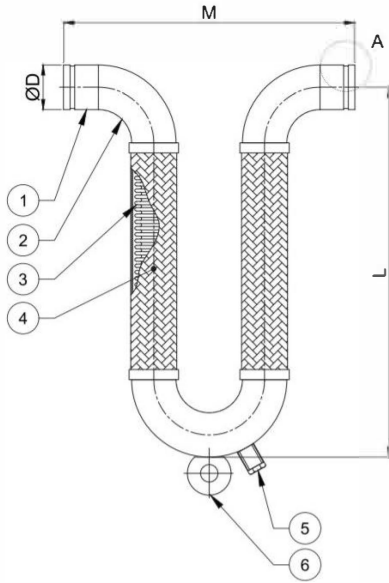
Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	33,7	242	375	242	500	242	510	242	585
32	42,4	290	400	290	525	290	566	290	635
40	48,3	328	425	328	575	328	625	328	685
50	60,3	414	475	414	625	414	680	414	760
65	76,1	510	525	510	700	510	770	510	865
80	88,9	598	575	598	750	598	865	598	940
100	114,3	780	700	780	875	780	990	780	1090
125	139,7	942	800	942	1000	942	1120	942	1220
150	168,3	1094	925	1094	1150	1094	1295	1094	1395
200	219,1	1420	1200	1420	1450	1420	1650	1420	1780

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

U-FLEX OMEGA LOOP EXPANSION JOINT | GROOVED



Part Number	Properties	
	Part name	Material
1	Welding Ends	S235JR / AISI 304-316 Op
2	Elbow 90°	S235JR / AISI 304-316 Op
3	Metal Hose	AISI 304 / AISI 316-321 Op
4	Braiding	AISI 304 / AISI 316-321 Op
5	Drain Plug	GG25 / AISI 304-316 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

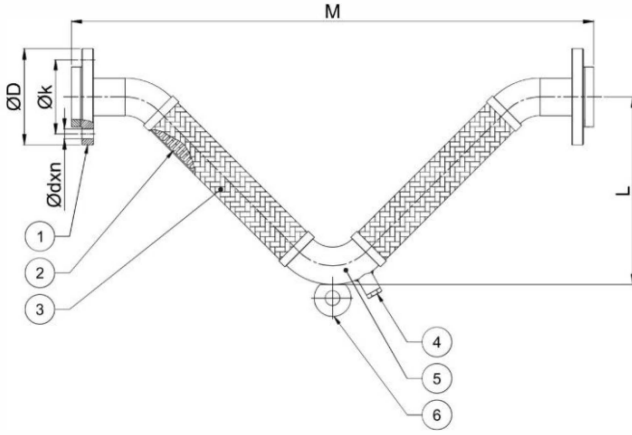
Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	33,7	242	375	242	500	242	510	242	585
32	42,4	290	400	290	525	290	566	290	635
40	48,3	328	425	328	575	328	625	328	685
50	60,3	414	475	414	625	414	680	414	760
65	76,1	510	525	510	700	510	770	510	865
80	88,9	598	575	598	750	598	865	598	940
100	114,3	780	700	780	875	780	990	780	1090
125	139,7	942	800	942	1000	942	1120	942	1220
150	168,3	1094	925	1094	1150	1094	1295	1094	1395
200	219,1	1420	1200	1420	1450	1420	1650	1420	1780

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

V-FLEX OMEGA LOOP EXPANSION JOINT | FLANGED



Part Number	Properties	
	Part name	Material
1	Flange Connection	S235JR / AISI 304-316 Op
2	Metal Hose	S235JR / AISI 304-316 Op
3	Braiding	AISI 304 / AISI 316-321 Op
4	Drain Plug	GG25 / AISI 304-316 Op
5	Elbow 90°	S235JR / AISI 316-321 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

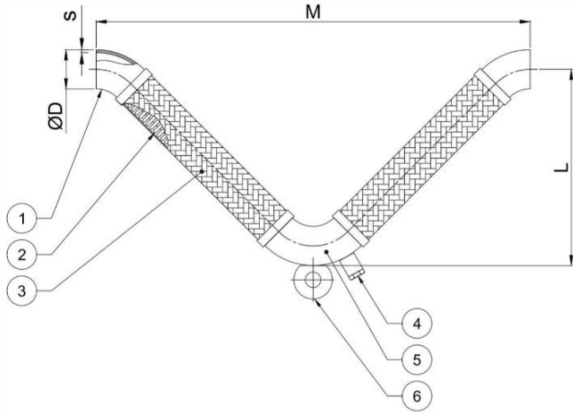
Connection Dia	Dimensions				Expansions x,y,z							
					±50mm		±100mm		±150mm		±200mm	
DN	ØD	ØD2	ØK	Ødxn	M	L	M	L	M	L	M	L
25	115	68	85	14x4	609	239	761	315	930	400	1100	484
32	140	78	100	18x4	676	264	854	353	1035	443	1220	535
40	150	88	110	18x4	800	321	966	404	1110	476	1260	551
50	165	102	125	18x4	868	344	1097	455	1255	536	1415	616
65	185	122	140	18x8	1044	410	1283	530	1420	601	1560	671
80	200	138	160	18x8	1262	505	1428	588	1580	668	1730	743
100	220	158	180	18x8	1392	536	1570	625	1765	737	1960	834
125	250	188	210	18x8	1695	663	1733	682	1975	823	2220	945
150	285	212	240	22x8	1894	746	2022	810	2235	939	2450	1046
200	340	268	295	22x12	2168	835	2358	930	2607	1086	2852	1208

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

V-FLEX OMEGA LOOP EXPANSION JOINT | WELDING ENDS



Part Number	Properties	
	Part name	Material
1	Welding Ends	S235JR / AISI 304-316 Op
2	Metal Hose	S235JR / AISI 304-316 Op
3	Braiding	AISI 304 / AISI 316-321 Op
4	Drain Plug	GG25 / AISI 304-316 Op
5	Elbow 90°	S235JR / AISI 316-321 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

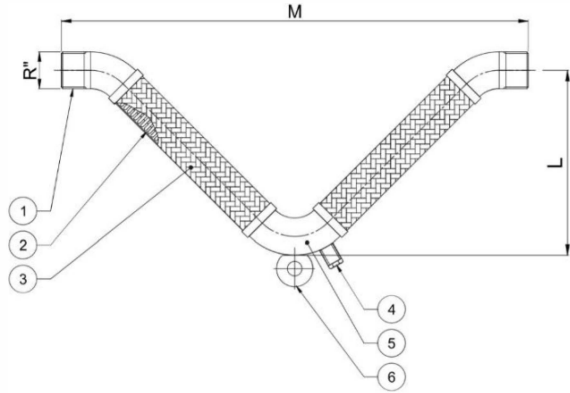
Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	33,7	507	239	659	315	830	400	1000	484
32	42,4	564	264	742	353	925	443	1110	535
40	48,3	689	321	854	404	1000	476	1150	551
50	60,3	746	344	975	455	1135	536	1295	616
65	76,1	902	410	1141	530	1280	601	1420	671
80	88,9	1110	505	1277	588	1430	668	1580	743
100	114,3	1210	536	1388	625	1585	737	1780	834
125	139,7	1503	663	1541	682	1785	823	2030	945
150	168,3	1702	746	1830	810	2045	939	2260	1946
200	219,1	1956	835	2146	930	2395	1086	2640	1208

x, y and z expansions are total (+/-) values.

Flanges are TS EN 1092-1 norm

All dimensions are "millimeter".

V-FLEX OMEGA LOOP EXPANSION JOINT | THREADED



Part Number	Properties	
	Part name	Material
1	Threaded Connections	S235JR / AISI 304-316 Op
2	Metal Hose	AISI 304 / AISI 316-321 Op
3	Braiding	AISI 304 / AISI 316-321 Op
4	Drain Plug	GG25 / AISI 304-316 Op
5	Elbow 90°	S235JR / AISI 304-316 Op
6	Fixing Part	S235JR / AISI 304-316 Op

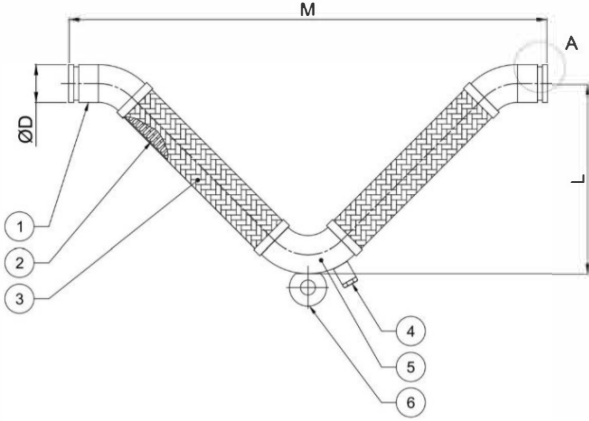
(Op.) = Optional

Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	33,7	597	239	749	315	920	400	1090	484
32	42,4	664	264	842	353	1025	443	1210	535
40	48,3	789	321	954	404	1100	476	1250	551
50	60,3	856	340	1085	455	1245	536	1405	616
65	76,1	1032	410	1271	530	1410	601	1550	671
80	88,9	1250	505	1416	588	1570	668	1720	743
100	114,3	1380	536	1558	625	1755	737	1950	834
125	139,7	1683	663	1721	682	1965	823	2210	945
150	168,3	1882	746	2010	819	2225	939	2440	1046
200	219,1	2156	835	2346	930	2595	1086	2840	1208

x, y and z expansions are total (+/-) values.

All dimensions are "millimeter".

V-FLEX OMEGA LOOP EXPANSION JOINT | GROOVED



Part Number	Properties	
	Part name	Material
1	Grooved Connections	S235JR / AISI 304-316 Op
2	Metal Hose	AISI 304 / AISI 316-321 Op
3	Braiding	AISI 304 / AISI 316-321 Op
4	Drain Plug	GG25 / AISI 304-316 Op
5	Elbow 90°	S235JR / AISI 304-316 Op
6	Fixing Part	S235JR / AISI 304-316 Op

(Op.) = Optional

Connection Dia	Dimensions	Expansions x,y,z							
		±50mm		±100mm		±150mm		±200mm	
DN	ØD	M	L	M	L	M	L	M	L
25	33,7	597	239	749	315	920	400	1090	484
32	42,4	664	264	842	353	1025	443	1210	535
40	48,3	789	321	954	404	1100	476	1250	551
50	60,3	856	340	1085	455	1245	536	1405	616
65	76,1	1032	410	1271	530	1410	601	1550	671
80	88,9	1250	505	1416	588	1570	668	1720	743
100	114,3	1380	536	1558	625	1755	737	1950	834
125	139,7	1683	663	1721	682	1965	823	2210	945
150	168,3	1882	746	2010	819	2225	939	2440	1046
200	219,1	2156	835	2346	930	2595	1086	2840	1208

x, y and z expansions are total (+/-) values.

All dimensions are "millimeter".