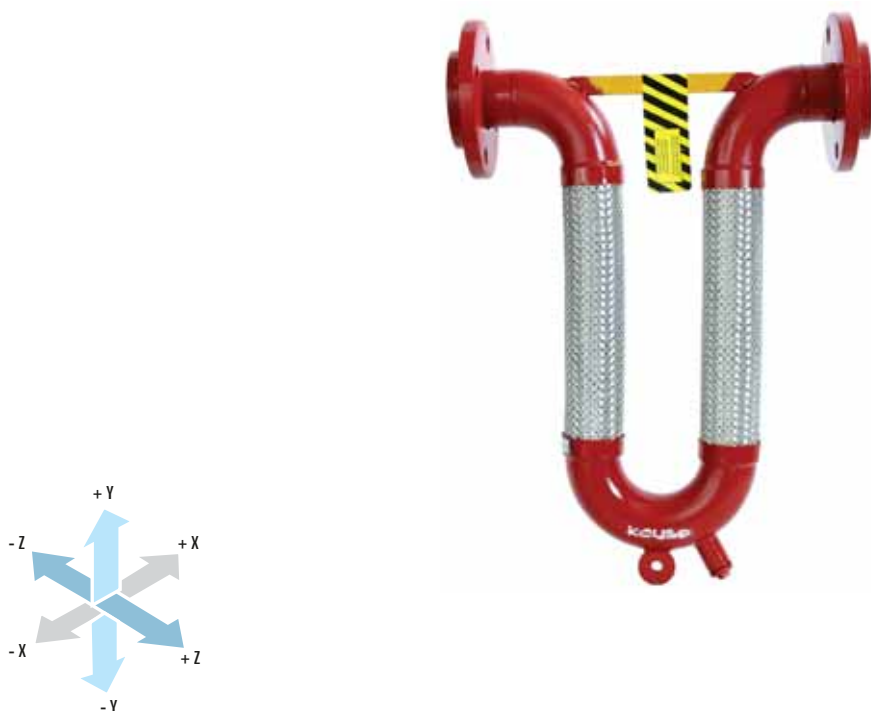


FM Code	Product Code	Definition
KYSUF	U100 - FFM	U-Flex Omega Loop Expansion Joint Flanged ± 50 mm Expansion
KYSUF	U200 - FFM	U-Flex Omega Loop Expansion Joint Flanged ± 100 mm Expansion

GENERAL

U-Flex expansion joints are intermediate parts used to dampen unexpected random dynamic loads that may come from the ground in seismic zones where seismic motion may be intense, to take stress on the line and to ensure the smooth operation of the system. They ensure the continuity of the line by protecting the boiler, chiller, fan coil units and fire sprinkler system by countering possible movements in any direction with the building.

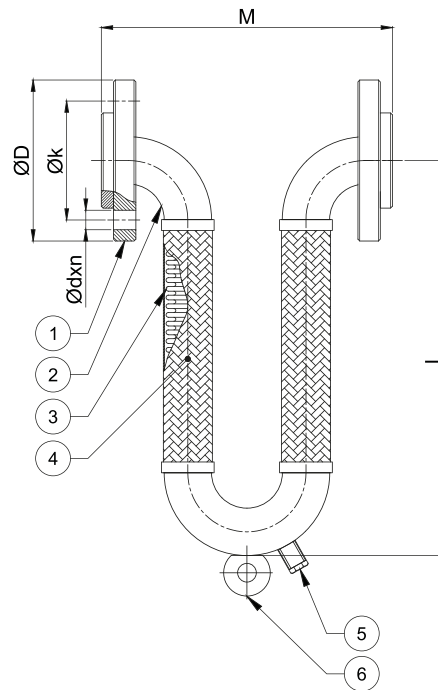
KAYSE Omega Type U-Flex omega loop expansion joints with FM Approved certificate eliminate breakage, cracking and crashes in the line, and ensure the continuity of fire, water and gas line in earthquake or building collapses.



Standard Product Materials		Optional Product Materials
Hose	1.4301 (AISI 304)	1.4541 (AISI 321)
Braid	1.4301 (AISI 304)	1.4301 (AISI 304)
Flanges	1.0038 (St 37-2)	Stainless Steel
Elbows	1.0038 (St 37-2)	Stainless Steel

Design Parameters	
Design Pressure	175 psi (Up to 250 psi)
Design Temperature	+20°C (-90°C...+550°C)
Diameters	DN25 (1")...DN250 (10")
Movements	100mm (± 50) / 200mm (± 100)
Standards	EN, ANSI
Certifications	FM Approved - CE Module H (Optional)

**Please contact our sales team for your special requests.



Part Number	Specifications	
	Name	Material
1	Flange	1.0038 (S235JR / St37-2)
2	90° Elbow	1.0038 (S235JR / St37-2)
3	Flex Metal Hose	1.4301 (AISI 304)
4	Braid	1.4301 (AISI 304)
5	Drain Plug	1.0038 (S235JR / St37-2)
6	Fixing Part	1.0038 (S235JR / St37-2)

Diameters		KYSUF				ØD (mm)	Øk (mm)	Ød x n (mm)
		U100-FFM		U200-FFM				
		X, Y, Z: ±50mm		X, Y, Z: ±100mm				
		M (mm)	L (mm)	M (mm)	L (mm)			
DN25	1"	254	375	254	500	115	85	14*4
DN32	1 1/4"	302	400	302	525	140	100	18*4
DN40	1 1/2"	340	425	340	575	140	110	18*4
DN50	2"	426	475	426	625	165	125	18*4
DN65	2 1/2"	522	525	522	700	185	145	18*4
DN80	3"	610	575	610	750	200	160	18*8
DN100	4"	792	700	792	875	220	180	18*8
DN125	5"	954	800	954	1000	250	210	18*8
DN150	6"	1106	925	1106	1150	285	240	22*8
DN200	8"	1432	1200	1432	1450	340	295	22*12
DN250	10"	1760	1415	1760	1705	405	355	26*12

** X,Y,Z value represents axial, lateral, angular movements. Please contact our technical department for different movement requirements.

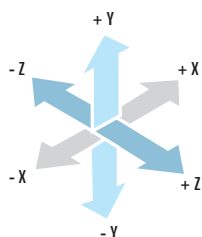
** Flange diameters are according to PN16 pressure class.

FM Code	Product Code	Definition
KYSUKB	U100-KBFM	U-Flex Omega Loop Expansion Joint Welding Ends ± 50 mm Expansion
KYSUKB	U200-KBFM	U-Flex Omega Loop Expansion Joint Welding Ends ± 100 mm Expansion

GENERAL

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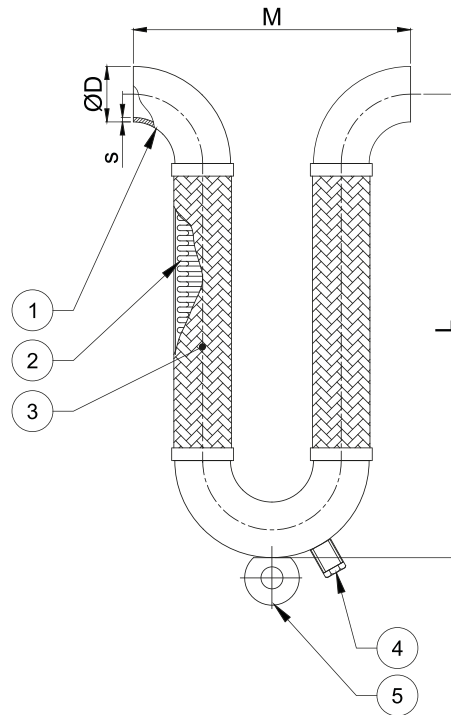
KAYSE Omega Type U-Flex omega loop expansion joints with FM Approved certificate eliminate breakage, cracking and crashes in the line, and ensure the continuity of fire, water and gas line in earthquake or building collapses.



Standard Product Materials		Optional Product Materials
Hose	1.4301 (AISI 304)	1.4541 (AISI 321)
Braid	1.4301 (AISI 304)	1.4301 (AISI 304)
Welding Ends	1.0038 (St 37-2)	Stainless Steel
Elbows	1.0038 (St 37-2)	Stainless Steel

Design Parameters	
Design Pressure	175 psi (Up to 250 psi)
Design Temperature	+20°C (-90°C...+550°C)
Diameters	DN25 (1")...DN250 (10")
Movements	100mm (± 50) / 200mm (± 100)
Standards	EN, ANSI
Certifications	FM Approved - CE Module H (Optional)

**Please contact our sales team for your special requests.



Part Number	Specifications	
	Name	Material
1	90° Patent Elbow	1.0038 (S235JR / St37-2)
2	Flex Metal Hose	1.4301 (AISI 304)
3	Braid	1.4301 (AISI 304)
4	Drain Plug	1.0038 (S235JR / St37-2)
5	Fixing Part	1.0038 (S235JR / St37-2)

Diameters		KYSUKB				ØD (mm)	s (mm)
		U100-KBFM		U200-KBFM			
		X, Y, Z: ±50mm		X, Y, Z: ±100mm			
		M (mm)	L (mm)	M (mm)	L (mm)		
DN25	1"	152	375	152	500	33,7	2,6
DN32	1 1/4"	190	400	190	525	42,4	2,6
DN40	1 1/2"	228	425	228	575	48,3	2,6
DN50	2"	304	475	304	625	60,3	2,9
DN65	2 1/2"	380	525	380	700	76,1	2,9
DN80	3"	458	575	458	750	88,9	3,2
DN100	4"	610	700	610	875	114,3	3,6
DN125	5"	762	800	762	1000	139,7	4
DN150	6"	914	925	914	1150	168,3	4,5
DN200	8"	1220	1200	1220	1450	219,1	5,9
DN250	10"	1524	1702	1524	1981	273	6,3

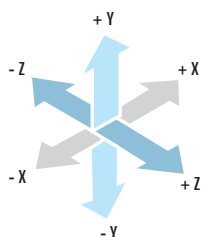
** X,Y,Z value represents axial, lateral, angular movements. Please contact our technical department for different movement requirements.

FM Code	Product Code	Definition
KYSUY	U100- YVFM	U-Flex Omega Loop Expansion Joint Grooved ± 50 mm Expansion
KYSUY	U200- YVFM	U-Flex Omega Loop Expansion Joint Grooved ± 100 mm Expansion

GENERAL

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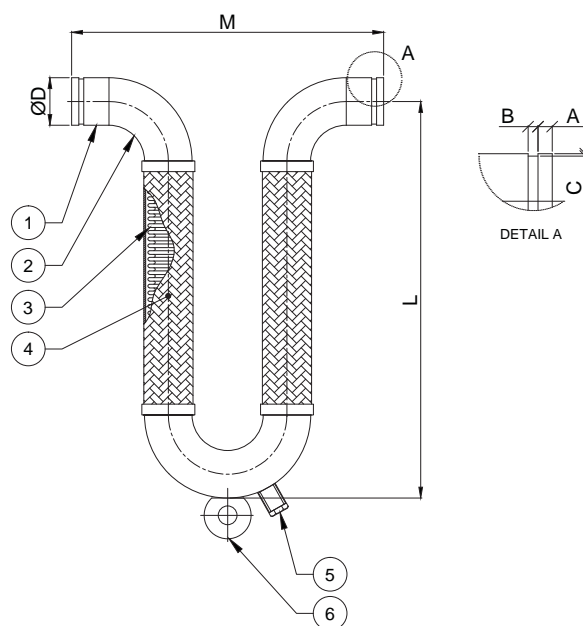
KAYSE Omega Type U-Flex omega loop expansion joints with FM Approved certificate eliminate breakage, cracking and crashes in the line, and ensure the continuity of fire, water and gas line in earthquake or building collapses.



Standard Product Materials		Optional Product Materials
Hose	1.4301 (AISI 304)	1.4541 (AISI 321)
Braid	1.4301 (AISI 304)	1.4301 (AISI 304)
Grooved Connections	1.0038 (St 37-2)	Stainless Steel
Elbows	1.0038 (St 37-2)	Stainless Steel

Design Parameters	
Design Pressure	250 psi
Design Temperature	+20°C (-90°C...+550°C)
Diameters	DN25 (1")...DN250 (10")
Movements	100mm (± 50) / 200mm (± 100)
Standards	EN, ANSI
Certifications	FM Approved - CE Module H (Optional)

**Please contact our sales team for your special requests.



Part Number	Specifications	
	Name	Material
1	Grooved Connections	1.0038 (S235JR / St37-2)
2	90° Elbow	1.0038 (S235JR / St37-2)
3	Flex Metal Hose	1.4301 (AISI 304)
4	Braid	1.4301 (AISI 304)
5	Drain Plug	1.0038 (S235JR / St37-2)
6	Fixing Part	1.0038 (S235JR / St37-2)

Diameters		KYSUY				A (mm)	B (mm)	C (mm)	ØD (mm)
		U100-YVFM		U200-YVFM					
		X, Y, Z: ±50mm		X, Y, Z: ±100mm					
		M (mm)	L (mm)	M (mm)	L (mm)				
DN25	1"	242	375	242	500	15,8	7,1	1,6	33,7
DN32	1 1/4"	290	400	290	525	15,8	7,1	1,6	42,4
DN40	1 1/2"	328	425	328	575	15,8	7,1	1,6	48,3
DN50	2"	414	475	414	625	15,8	8,7	1,6	60,3
DN65	2 1/2"	510	525	510	700	15,8	8,7	1,9	76,1
DN80	3"	598	575	598	750	15,8	8,7	1,9	88,9
DN100	4"	780	700	780	875	15,8	8,7	2,1	114,3
DN125	5"	942	800	942	1000	15,8	8,7	2,1	139,7
DN150	6"	1094	925	1094	1150	15,8	8,7	2,1	168,3
DN200	8"	1420	1200	1420	1450	19,0	11,9	2,3	219,1
DN250	10"	1724	1702	1724	1981	19,0	11,9	2,3	273

** X,Y,Z value represents axial, lateral, angular movements. Please contact our technical department for different movement requirements.

FM Code	Product Code	Definition
KYSUD	U100-DFM	U-Flex Omega Loop Expansion Joint Threaded ± 50 mm Expansion
KYSUD	U200- DFM	U-Flex Omega Loop Expansion Joint Threaded ± 100 mm Expansion

GENERAL

U-Flex expansion joints are intermediate parts used to dampen unexpected random dynamic loads that may come from the ground in seismic zones where seismic motion may be intense, to take stress on the line and to ensure the smooth operation of the system. They ensure the continuity of the line by protecting the boiler, chiller, fan coil units and fire sprinkler system by countering possible movements in any direction with the building.

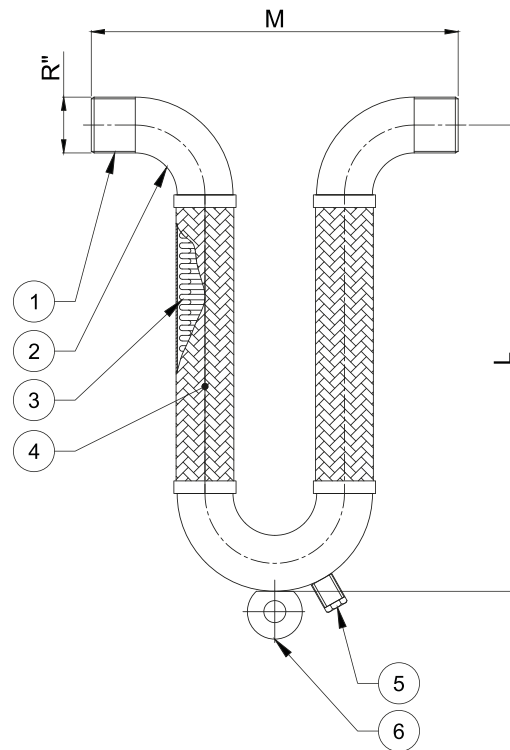
KAYSE Omega Type U-Flex omega loop expansion joints with FM Approved certificate eliminate breakage, cracking and crashes in the line, and ensure the continuity of fire, water and gas line in earthquake or building collapses.



Standard Product Materials		Optional Product Materials
Hose	1.4301 (AISI 304)	1.4541 (AISI 321)
Braid	1.4301 (AISI 304)	1.4301 (AISI 304)
Threaded Connections	1.0038 (St 37-2)	Stainless Steel
Elbows	1.0038 (St 37-2)	Stainless Steel

Design Parameters	
Design Pressure	250 psi
Design Temperature	+20°C (-90°C...+550°C)
Diameters	DN25 (1")...DN250 (10")
Movements	100mm (± 50) / 200mm (± 100)
Standards	EN, ANSI
Certifications	FM Approved - CE Module H (Optional)

**Please contact our sales team for your special requests.



Part Number	Specifications	
	Name	Material
1	Threaded Connection	1.0038 (S235JR / St37-2)
2	90° Elbow	1.0038 (S235JR / St37-2)
3	Flex Metal Hose	1.4301 (AISI 304)
4	Braid	1.4301 (AISI 304)
5	Drain Plug	1.0038 (S235JR / St37-2)
6	Fixing Part	1.0038 (S235JR / St37-2)

Diameters	KYSUD			
	U100-DFM		U200-DFM	
	X, Y, Z: ±50mm		X, Y, Z: ±100mm	
	M (mm)	L (mm)	M (mm)	L (mm)
1"	242	375	242	500
1 1/4"	290	400	290	525
1 1/2"	328	425	328	575
2"	414	475	414	625
2 1/2"	510	525	510	700
3"	598	575	598	750
4"	780	700	780	875

** X,Y,Z value represents axial movement. Please contact our technical department for different expansion requirements.

During earthquake it would not be possible to predict the direction of the movement with certainty therefore it would be possible to observe axial distancing, parallel movement, frontal collapse at dilatation points of two buildings with different foundations, as shown bellows. With the omega application that is widely used in the world, all the movements can be taken under control and the continuity of the system can be ensured.



Standart Position



Thermal Compression



Thermal Expansion



All Directional
Seismic Movement



Axial
Compression&Extension



Parallel Offset with "X"
Axis Rotation



Parallel Offset with "Z"
Axis Rotation



Parallel Offset with "Y"
Axis Rotation



Horizontal Connection



Vertical Connection



Vertical Connection



Parallel Connection



Storage Tanks



Fire Dilatation Transition

MULTIPLE OMEGA U-FLEX APPLICATIONS

Omega Type U-Flex can be mounting by flange, thread, cut grooved, welded on the multiple installations application L, M, H distances determined before ordering notify values of X, Y, Z movement system pressure and temperature.

