



LOOP FLEXIBLE JOINT

YOUNGJIN
F L E X



BENEFITS OF YOUNGJIN LOOP FLEXIBLE JOINT

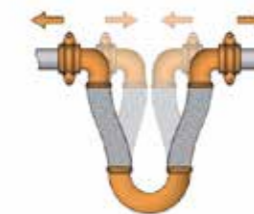
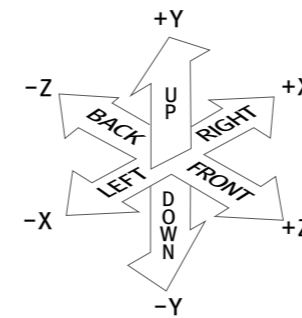
- 1) Simple structure, excellent expansion compensation properties
- 2) Smaller spatial requirements for the same level of expansion
- 3) Easy piping alignment and multiple pipe arrangements for efficient space use
- 4) Lightweight for easy installation
- 5) Almost no thrust force from piping, hence reductions in anchor and support installation costs
- 6) Excellent soundness against exciting force
- 7) Omnidirectional absorption: absorbs seismic displacement in six directions

INTRODUCTION OF THE LOOP FLEXIBLE JOINT

Purpose of installing Loop Flexible Joints

The purpose of installing Loop Flexible Joints is to protect fire and other piping in buildings from shocks generated by seismic load or ground subsidence in the event of earthquakes, thereby preventing direct damages, fire, explosion, and other disasters and reducing damages arising therefrom. In comparison to loops or bellows made of solid pipes, they require less anchor load and smaller space for installation.

The Youngjin Loop Flexible Joint is designed to move in all directions hence suitable for various applications, especially fire sprinkler systems.



Axial compression and extension



Parallel offset "Z" axis



Parallel offset "X" axis rotation



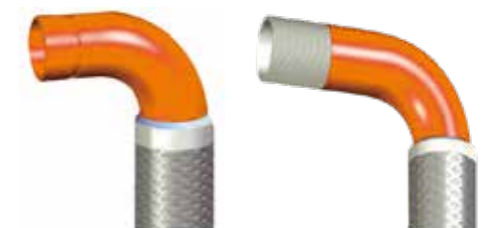
Non-parallel offset "Y" axis

- Has a double-braided structure to endure high pressure: 175 psi & 300 psi
- Obtained UL and FM safety certifications.
- Is compatible with various connectors, hence easy to install: couplings, nuts

Design

Bellows Material	A240-304
Braid Material	A240-304
Pressure	1" ~ 3" : 300 psi, 4" ~ 8" : 175 psi
Movement	±40mm ~ ±200mm

Other Movement : Contact us



GENERAL INSTALLATION AND APPLICATION OF THE LOOP FLEXIBLE JOINT



1
HORIZONTAL



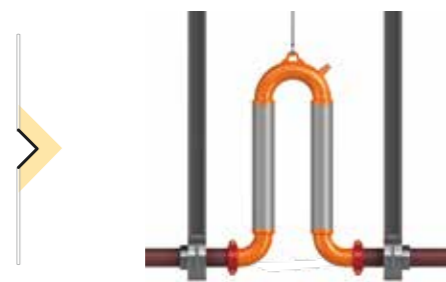
The common way to install the loop joint, where the loop is installed in parallel with the ceiling. Four-way supports installed on either side of all loops should be installed in the distance of 1.8M from the loop connector, and the horizontality of the loop should be within the range of $\pm 6.4\text{mm}$.

2
DEFLECTED



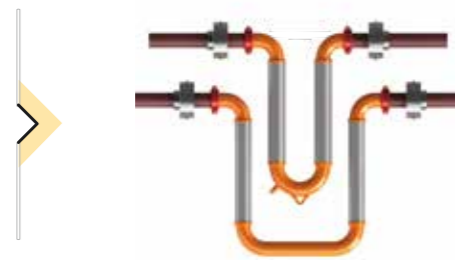
The loop is installed with downward deflection. Four-way supports should be installed securely. For scale or foreign matters may pile up during operation, a drain nozzle should be installed in the U-pipe when ordering the loop.

3
UPWARD
RIGHT-
ANGLED



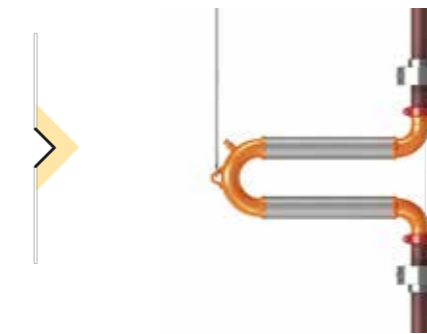
The loop is installed facing upwards. In this case, a hanger should be installed in the lug to prevent the loop from leaning so that the loop can lead back. A vent nozzle should be installed in the U-pipe when ordering the loop.

4
PARALLEL



Where two or more pipes run parallel in the same direction in the same piping system, there may be challenges in installing loops caused by interference. In this case, the pipes should be arranged in the descending order of diameter to avoid interference.

5
WALL-
MOUNTED



When installing loop in expansion piping on a wall, a guide pipe should be installed instead of a support, and a spring hanger should be installed on the wall to prevent the loop from sagging.

6
INTERFERENCE

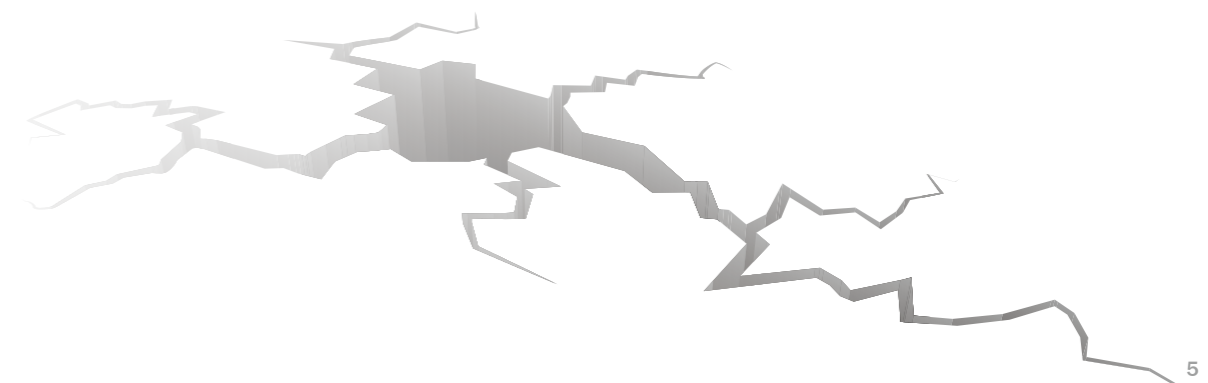


The loop can be installed as shown where piping runs close to the wall that may interfere with the U-pipe of the loop or expansion interference is anticipated.

7
CORNER
LOOP



One loop absorbs the expansion of two pipe runs, horizontally and vertically. Absorbing expansion in two directions without an anchor, it offers space- and cost-saving benefits. An expansion guide should be installed in this configuration.

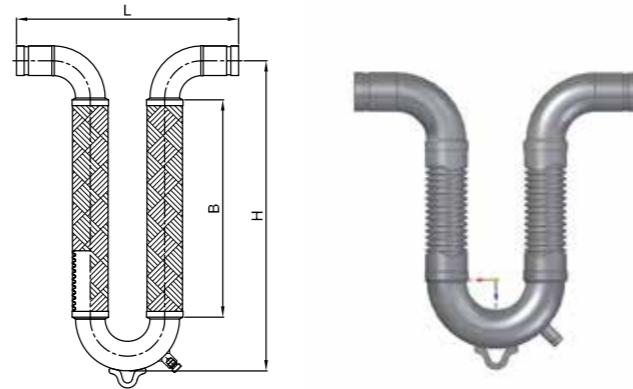


LOOP FLEXIBLE JOINT (U-TYPE) : GROOVE

Loop Flexible Joint, Grooved End Connection

Certification	Movement	Design
UL, FM, NSF	± 50mm(2")	175/300psi
	± 100mm(4")	
	± 200mm(8")	

Other Movement : Contact us

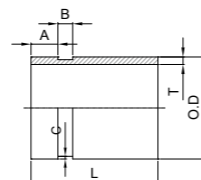


unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-U-GR	DN25	1"	386	473	305	392	512	419	462	601	508	300	2.0
	DN32	1-1/4"	406	483	305	421	536	419	501	650	533	300	2.0
	DN40	1-1/2"	464	502	305	499	596	457	579	697	559	300	2.0
	DN50	2"	502	546	330	555	640	457	635	767	584	300	2.0
	DN65	2-1/2"	531	595	368	596	722	495	681	875	648	300	2.0
	DN80	3"	607	667	394	607	768	495	707	959	686	300	2.0
	DN100	4"	760	787	425	760	895	533	810	1099	737	175	1.2
	DN125	5"	952	934	483	952	1023	572	952	1226	775	175	1.2
	DN150	6"	1104	1049	508	1104	1176	635	1104	1405	864	175	1.2
	DN200	8"	1409	1297	578	1409	1481	762	1409	1786	1067	175	1.2
DN250	10"	1724	1508	610	1724	1673	775	1724	1978	1080	175	1.2	

Different specifications: Contact us

GROOVE DIMENSIONS(mm)							
DN	Inch	A ±0.76	B ±0.76	T (mm)	C (mm)	ØO.D	L (mm)
DN25	1"	15.88	7.14	3.38	1.60	33.4	55
DN32	1-1/4"	15.88	7.14	3.56	1.60	42.2	55
DN40	1-1/2"	15.88	7.95	3.68	1.60	48.3	75
DN50	2"	15.88	8.74	3.91	1.60	60.3	75
DN65	2-1/2"	15.88	8.74	5.16	1.98	73.0	75
DN80	3"	15.88	8.74	5.49	1.98	88.9	75
DN100	4"	15.88	8.74	6.02	2.11	114.3	75
DN125	5"	15.88	8.74	6.55	2.13	141.3	95
DN150	6"	15.88	8.74	7.11	2.16	168.3	95
DN200	8"	19.05	11.91	8.18	2.34	219.1	95
DN250	10"	19.05	11.91	9.27	2.39	273.0	100

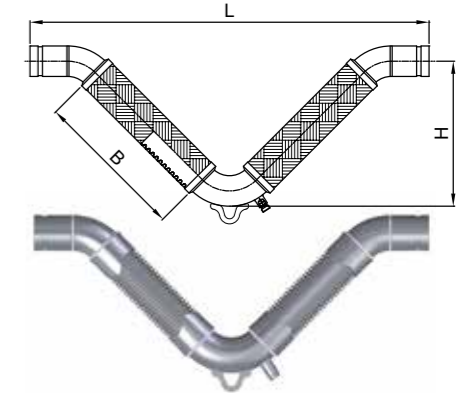


LOOP FLEXIBLE JOINT (V-TYPE) : GROOVE

Loop Flexible Joint, Grooved End Connection

Certification	Movement	Design
UL, FM, NSF	± 50mm(2")	175/300psi
	± 100mm(4")	
	± 200mm(8")	

Other Movement : Contact us

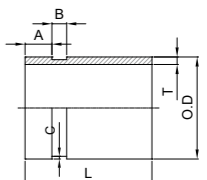


unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-V-GR	DN25	1"	571	216	250	692	276	335	854	357	450	300	2.0
	DN32	1-1/4"	613	233	260	747	300	355	924	388	480	300	2.0
	DN40	1-1/2"	701	252	275	842	323	375	1026	415	505	300	2.0
	DN50	2"	790	287	300	945	365	410	1143	464	550	300	2.0
	DN65	2-1/2"	921	343	355	1098	432	480	1332	548	645	300	2.0
	DN80	3"	989	370	365	1180	465	500	1421	585	670	300	2.0
	DN100	4"	1140	426	395	1345	528	540	1613	663	730	175	1.2
	DN125	5"	1323	479	420	1535	585	570	1818	727	770	175	1.2
	DN150	6"	1466	533	445	1699	649	610	2010	805	830	175	1.2
	DN200	8"	1717	620	470	1957	741	640	2282	903	870	175	1.2
DN250	10"	2013	727	520	2282	862	710	2565	1003	910	175	1.2	

Different specifications: Contact us

GROOVE DIMENSIONS(mm)							
DN	Inch	A ±0.76	B ±0.76	T (mm)	C (mm)	ØO.D	L (mm)
DN25	1"	15.88	7.14	3.38	1.60	33.4	55
DN32	1-1/4"	15.88	7.14	3.56	1.60	42.2	55
DN40	1-1/2"	15.88	7.95	3.68	1.60	48.3	75
DN50	2"	15.88	8.74	3.91	1.60	60.3	75
DN65	2-1/2"	15.88	8.74	5.16	1.98	73.0	75
DN80	3"	15.88	8.74	5.49	1.98	88.9	75
DN100	4"	15.88	8.74	6.02	2.11	114.3	75
DN125	5"	15.88	8.74	6.55	2.13	141.3	95
DN150	6"	15.88	8.74	7.11	2.16	168.3	95
DN200	8"	19.05	11.91	8.18	2.34	219.1	95
DN250	10"	19.05	11.91	9.27	2.39	273.0	100

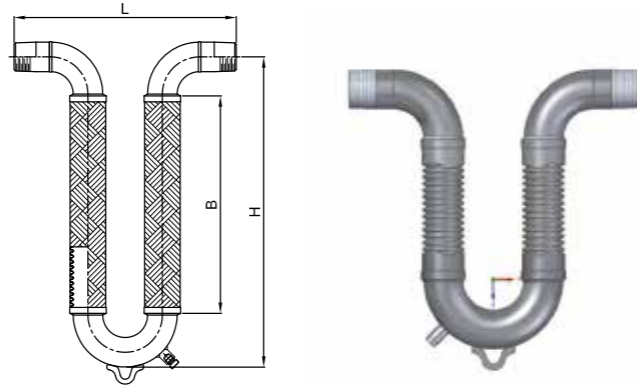


LOOP FLEXIBLE JOINT (U-TYPE) : THREAD

Loop Flexible Joint, Thread End Connection

Certification	Movement	Design
UL, FM, NSF	± 50mm(2")	175/300psi
	± 100mm(4")	
	± 200mm(8")	

Other Movement : Contact us



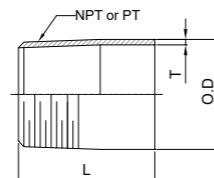
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure		
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa	
YJ-U-TH	DN25	1"	386	473	305	392	512	419	462	601	508	300	2.0	
	DN32	1-1/4"	406	483	305	421	536	419	501	650	533	300	2.0	
	DN40	1-1/2"	464	502	305	499	596	457	579	697	559	300	2.0	
	DN50	2"	502	546	330	555	640	457	635	767	584	300	2.0	
	DN65	2-1/2"	531	595	368	596	722	495	681	875	648	300	2.0	
	DN80	3"	607	667	394	607	768	495	707	959	686	300	2.0	
	DN100	4"	760	787	425	760	895	533	810	1099	737	175	1.2	
	DN125	5"												
	DN150	6"												
	DN200	8"												
DN250	10"													

Different specifications: Contact us

THREAD NIPPLES DIMENSIONS(mm)

DN	Inch	ØO.D	T(mm)	L(mm)	NPT, BSPT
DN25	1"	34.0	4.55	55	1"
DN32	1-1/4"	42.7	4.85	55	1-1/4"
DN40	1-1/2"	48.6	5.08	75	1-1/2"
DN50	2"	60.5	5.54	75	2"
DN65	2-1/2"	76.3	7.01	75	2-1/2"
DN80	3"	89.1	7.62	75	3"
DN100	4"	114.3	8.56	75	4"

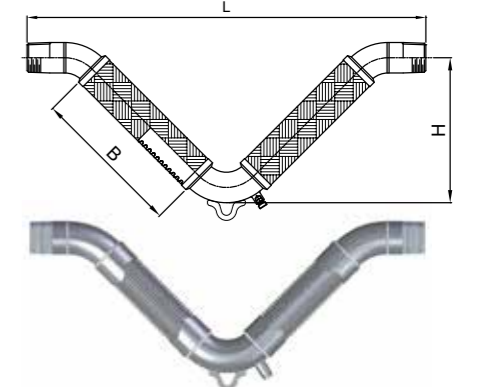


LOOP FLEXIBLE JOINT (V-TYPE) : THREAD

Loop Flexible Joint, Thread End Connection

Certification	Movement	Design
UL, FM, NSF	± 50mm(2")	175/300psi
	± 100mm(4")	
	± 200mm(8")	

Other Movement : Contact us



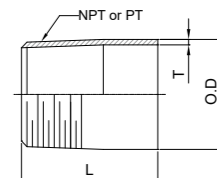
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure		
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa	
YJ-V-TH	DN25	1"	571	216	250	692	276	335	854	357	450	300	2.0	
	DN32	1-1/4"	613	233	260	747	300	355	924	388	480	300	2.0	
	DN40	1-1/2"	701	252	275	842	323	375	1026	415	505	300	2.0	
	DN50	2"	790	287	300	945	365	410	1143	464	550	300	2.0	
	DN65	2-1/2"	921	343	355	1098	432	480	1332	548	645	300	2.0	
	DN80	3"	989	370	365	1180	465	500	1421	585	670	300	2.0	
	DN100	4"	1140	426	395	1345	528	540	1613	663	730	175	1.2	
	DN125	5"												
	DN150	6"												
	DN200	8"												
DN250	10"													

Different specifications: Contact us

THREAD NIPPLES DIMENSIONS(mm)

DN	Inch	ØO.D	T(mm)	L(mm)	NPT, BSPT
DN25	1"	34.0	4.55	55	1"
DN32	1-1/4"	42.7	4.85	55	1-1/4"
DN40	1-1/2"	48.6	5.08	75	1-1/2"
DN50	2"	60.5	5.54	75	2"
DN65	2-1/2"	76.3	7.01	75	2-1/2"
DN80	3"	89.1	7.62	75	3"
DN100	4"	114.3	8.56	75	4"

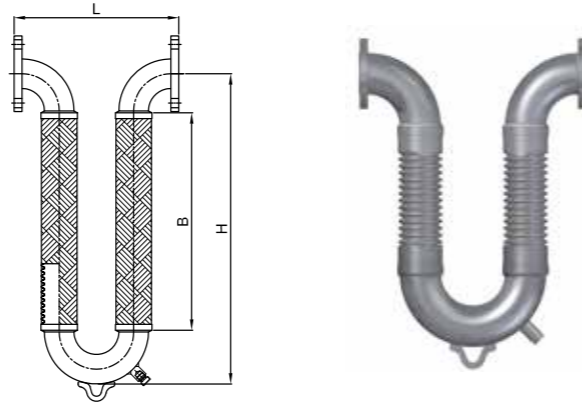


LOOP FLEXIBLE JOINT (U-TYPE) : FLANGED

Loop Flexible Joint, Flanged End Connection

Certification	Movement	Design
UL, FM, NSF	±50mm(2") ±100mm(4") ±200mm(8")	175/300psi

Other Movement : Contact us



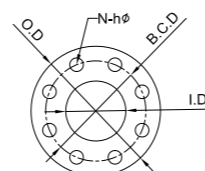
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-U-FL	DN25	1"	396	473	305	402	512	419	472	601	508	300	2.0
	DN32	1-1/4"	416	483	305	431	536	419	511	650	533	300	2.0
	DN40	1-1/2"	434	502	305	469	596	457	549	697	559	300	2.0
	DN50	2"	472	546	330	525	640	457	605	767	584	300	2.0
	DN65	2-1/2"	401	595	368	466	722	495	551	875	648	300	2.0
	DN80	3"	477	667	394	477	768	495	577	959	686	300	2.0
	DN100	4"	630	787	425	630	895	533	680	1099	737	175	1.2
	DN125	5"	782	934	483	782	1023	572	782	1226	775	175	1.2
	DN150	6"	934	1049	508	934	1176	635	934	1405	864	175	1.2
	DN200	8"	1239	1297	578	1239	1481	762	1239	1786	1067	175	1.2
DN250	10"	1544	1508	610	1544	1673	775	1544	1978	1080	175	1.2	

Different specifications: Contact us

FLANGE(ASME B16.5 150# SORF) DIMENSIONS(mm)

DN	Inch	ØO.D	ØB.C.D	ØI.D	T(mm)	N(ea)	Øh
DN25	1"	110	79.4	34.5	14.7	4	15.8
DN32	1-1/4"	115	88.9	43.2	16.3	4	15.8
DN40	1-1/2"	125	98.4	49.5	17.9	4	15.8
DN50	2"	150	120.7	61.9	19.5	4	19.1
DN65	2-1/2"	180	139.7	74.6	22.7	4	19.1
DN80	3"	190	152.4	90.7	24.3	4	19.1
DN100	4"	230	190.5	116.1	24.3	8	19.1
DN125	5"	255	215.9	143.8	24.3	8	22.2
DN150	6"	280	241.3	170.7	25.9	8	22.2
DN200	8"	345	298.5	221.5	29.0	8	22.2
DN250	10"	405	362.0	276.2	30.6	12	25.4



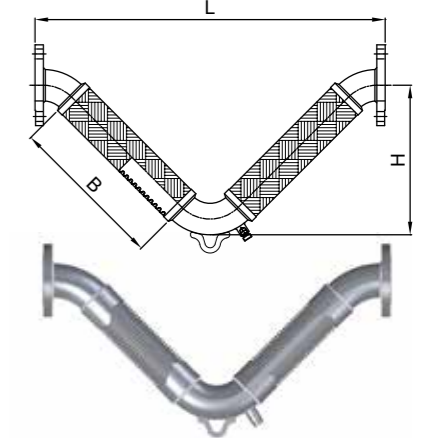
Also available: DIN16Bar, JIS10K

LOOP FLEXIBLE JOINT (V-TYPE) : FLANGED

Loop Flexible Joint, Flanged End Connection

Certification	Movement	Design
UL, FM, NSF	±50mm(2") ±100mm(4") ±200mm(8")	175/300psi

Other Movement : Contact us



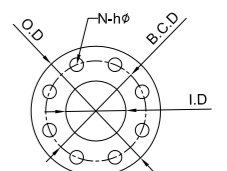
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-V-FL	DN25	1"	581	216	250	702	276	335	864	357	450	300	2.0
	DN32	1-1/4"	623	233	260	757	300	355	934	388	480	300	2.0
	DN40	1-1/2"	671	252	275	812	323	375	996	415	505	300	2.0
	DN50	2"	760	287	300	915	365	410	1113	464	550	300	2.0
	DN65	2-1/2"	791	343	355	968	432	480	1202	548	645	300	2.0
	DN80	3"	859	370	365	1050	465	500	1291	585	670	300	2.0
	DN100	4"	1010	426	395	1215	528	540	1483	663	730	175	1.2
	DN125	5"	1153	479	420	1365	585	570	1648	727	770	175	1.2
	DN150	6"	1296	533	445	1529	649	610	1840	805	830	175	1.2
	DN200	8"	1547	620	470	1787	741	640	2112	903	870	175	1.2
DN250	10"	1833	727	520	2102	862	710	2385	1003	910	175	1.2	

Different specifications: Contact us

FLANGE(ASME B16.5 150# SORF) DIMENSIONS(mm)

DN	Inch	ØO.D	ØB.C.D	ØI.D	T(mm)	N(ea)	Øh
DN25	1"	110	79.4	34.5	14.7	4	15.8
DN32	1-1/4"	115	88.9	43.2	16.3	4	15.8
DN40	1-1/2"	125	98.4	49.5	17.9	4	15.8
DN50	2"	150	120.7	61.9	19.5	4	19.1
DN65	2-1/2"	180	139.7	74.6	22.7	4	19.1
DN80	3"	190	152.4	90.7	24.3	4	19.1
DN100	4"	230	190.5	116.1	24.3	8	19.1
DN125	5"	255	215.9	143.8	24.3	8	22.2
DN150	6"	280	241.3	170.7	25.9	8	22.2
DN200	8"	345	298.5	221.5	29.0	8	22.2
DN250	10"	405	362.0	276.2	30.6	12	25.4



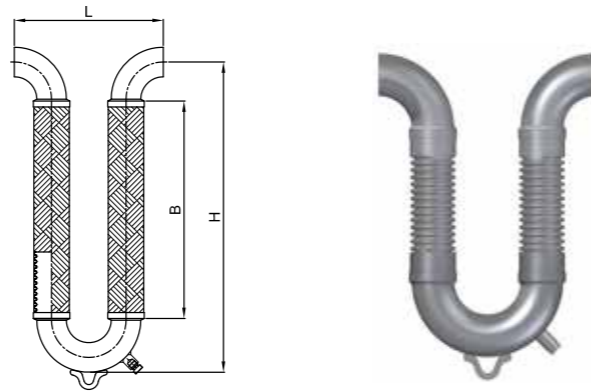
Also available: DIN16Bar, JIS10K

LOOP FLEXIBLE JOINT (U-TYPE) : WELDED

Loop Flexible Joint, Welded End Connection

Movement	Design
± 50mm(2")	175psi/300psi
± 100mm(4")	
± 200mm(8")	

Other Movement : Contact us



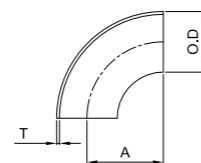
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-U-WE	DN25	1"	276	473	305	282	512	419	352	601	508	300	2.0
	DN32	1-1/4"	296	483	305	311	536	419	391	650	533	300	2.0
	DN40	1-1/2"	314	502	305	349	596	457	429	697	559	300	2.0
	DN50	2"	352	546	330	405	640	457	485	767	584	300	2.0
	DN65	2-1/2"	381	595	368	446	722	495	531	875	648	300	2.0
	DN80	3"	457	667	394	457	768	495	557	959	686	300	2.0
	DN100	4"	610	787	425	610	895	533	660	1099	737	175	1.2
	DN125	5"	762	934	483	762	1023	572	762	1226	775	175	1.2
	DN150	6"	914	1049	508	914	1176	635	914	1405	864	175	1.2
	DN200	8"	1219	1297	578	1219	1481	762	1219	1786	1067	175	1.2
DN250	10"	1524	1508	610	1524	1673	775	1524	1978	1080	175	1.2	

Different specifications: Contact us

WELD DIMENSIONS(mm)

DN	Inch	ØO.D	A(mm)	T(mm)
DN25	1"	33.4	38.1	3.38
DN32	1-1/4"	42.2	47.6	3.56
DN40	1-1/2"	48.3	57.2	3.68
DN50	2"	60.3	76.2	3.91
DN65	2-1/2"	73.0	95.3	5.16
DN80	3"	88.9	114.3	5.49
DN100	4"	114.3	152.4	6.02
DN125	5"	141.3	190.5	6.55
DN150	6"	168.3	228.6	7.11
DN200	8"	219.1	304.8	8.18
DN250	10"	273.0	381.0	9.27

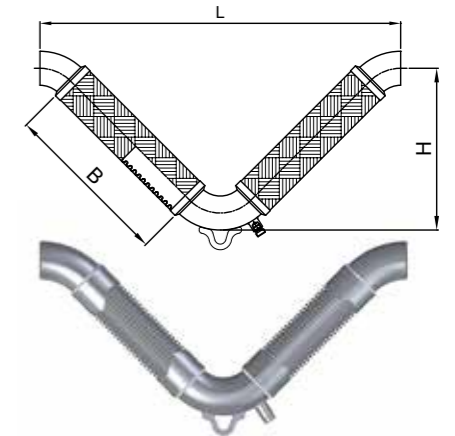


LOOP FLEXIBLE JOINT (V-TYPE) : WELDED

Loop Flexible Joint, Welded End Connection

Movement	Design
± 50mm(2")	175psi/300psi
± 100mm(4")	
± 200mm(8")	

Other Movement : Contact us



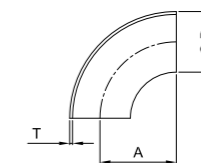
unit : mm

Type	Size		2" Movement (±50mm)			4" Movement (±100mm)			8" Movement (±200mm)			Pressure	
	DN	Inch	L	H	B	L	H	B	L	H	B	PSI	Mpa
YJ-V-WE	DN25	1"	461	216	250	582	276	335	744	357	450	300	2.0
	DN32	1-1/4"	503	233	260	637	300	355	814	388	480	300	2.0
	DN40	1-1/2"	551	252	275	692	323	375	876	415	505	300	2.0
	DN50	2"	640	287	300	795	365	410	993	464	550	300	2.0
	DN65	2-1/2"	771	343	355	948	432	480	1182	548	645	300	2.0
	DN80	3"	839	370	365	1030	465	500	1271	585	670	300	2.0
	DN100	4"	990	426	395	1195	528	540	1463	663	730	175	1.2
	DN125	5"	1133	479	420	1345	585	570	1628	727	770	175	1.2
	DN150	6"	1276	533	445	1509	649	610	1820	805	830	175	1.2
	DN200	8"	1527	620	470	1767	741	640	2092	903	870	175	1.2
DN250	10"	1813	727	520	2082	862	710	2365	1003	910	175	1.2	

Different specifications: Contact us

WELD DIMENSIONS(mm)

DN	Inch	ØO.D	A(mm)	T(mm)
DN25	1"	33.4	38.1	3.38
DN32	1-1/4"	42.2	47.6	3.56
DN40	1-1/2"	48.3	57.2	3.68
DN50	2"	60.3	76.2	3.91
DN65	2-1/2"	73.0	95.3	5.16
DN80	3"	88.9	114.3	5.49
DN100	4"	114.3	152.4	6.02
DN125	5"	141.3	190.5	6.55
DN150	6"	168.3	228.6	7.11
DN200	8"	219.1	304.8	8.18
DN250	10"	273.0	381.0	9.27



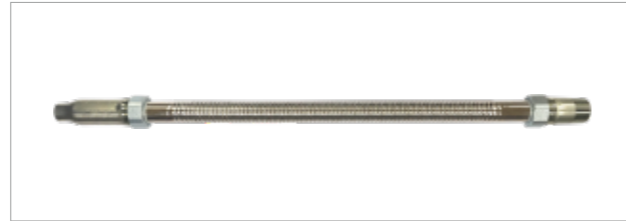
SPRINKLER HOSE

Certification: UL,FM, LPCB, VdS, CE, KFI

FLEXIBLE SPRINKLER HOSE WITH FITTINGS



BRAIDED HOSE WITH NIPPLE AND REDUCER



UNBRAIDED HOSE WITH NIPPLE AND REDUCER



ACCESSORIES

SPRINKLER HEAD



GLASS BULB TYPE
YJ-PS & YJ-US



GLASS BULB TYPE
YJ001 : UL



GLASS BULB TYPE
YJ002 : UL



GLASS BULB TYPE (QUICK)
YJ003 & YJ004 : UL



FLUSH TYPE
YJ-FS & YJ-FQ



SIDE WALL TYPE
YJ-SW & YJ-SWQ



DRY PENDENT TYPE
YJ-DP

BEST OF BEST

As an industrial equipment manufacturer of quality products with a vision for future, YoungJin Flex will continue to commit itself to playing a significant role in advancement of construction industry. Each of our staff will do our best to meet our customer's need and requirements in every aspect of quality, price and delivery requirements.

