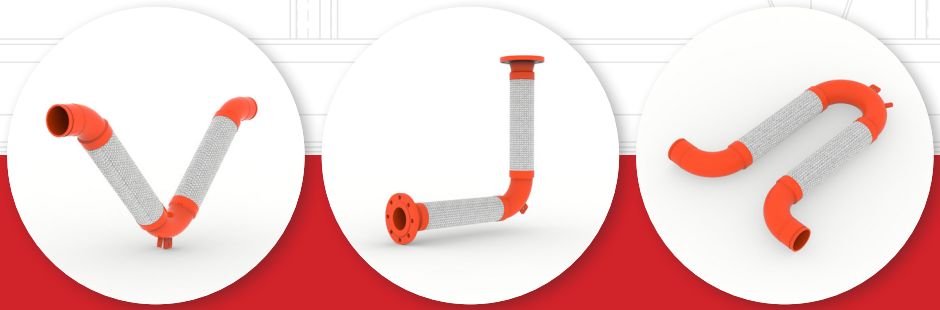
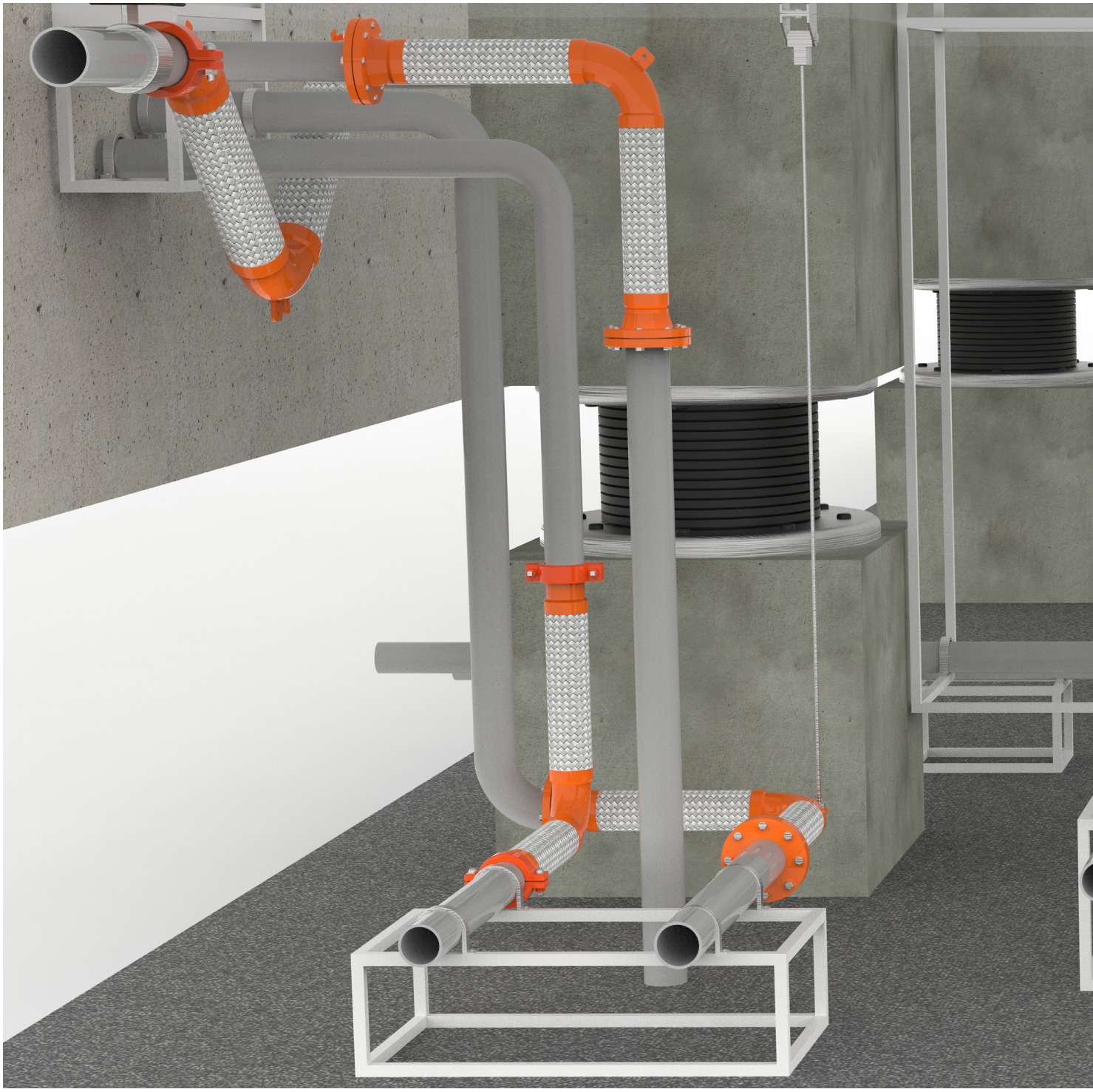
2026 Ed.

JRMS
Earthquake Separation Flexible

JRMS 내진 신축이음



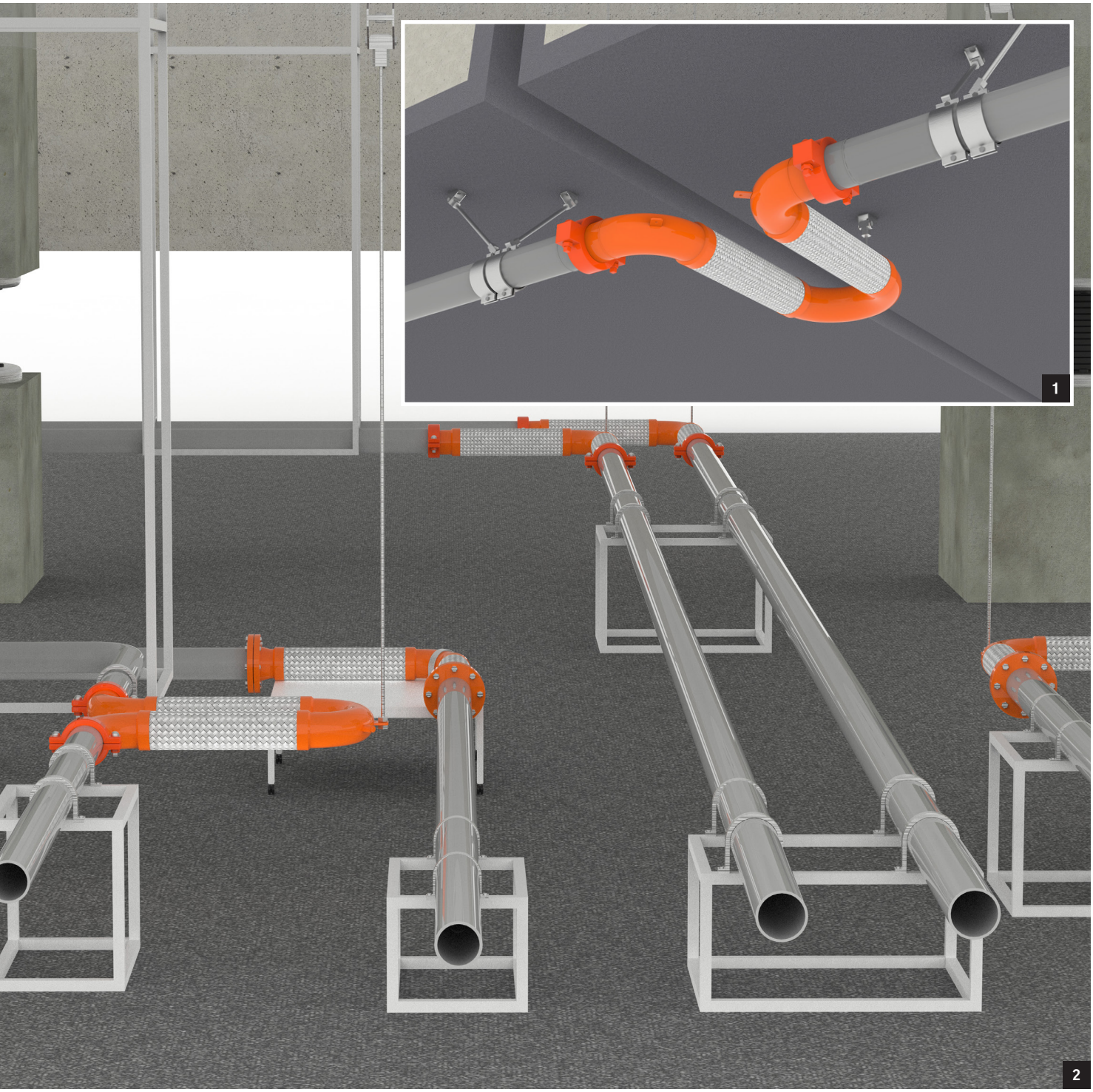
JRMS



JRMS-Earthquake Separation Flexible Technology

국내 최초 중앙소방기술심의위원회 통과

JRMS는 KFI 인증 한계인 300A를 넘어, 울산 S-OIL 샤힌 프로젝트(350A, 600A)에 대구경 지진분리장치를 적용했다.
자체 시험설비와 공인기관 입회시험을 통해 내압시험, 최대신축량시험, 최대신축 반복시험 등 핵심 성능을 공식적으로 검증하며,
고압·대구경 환경에서의 안전성과 신뢰성을 입증했다.

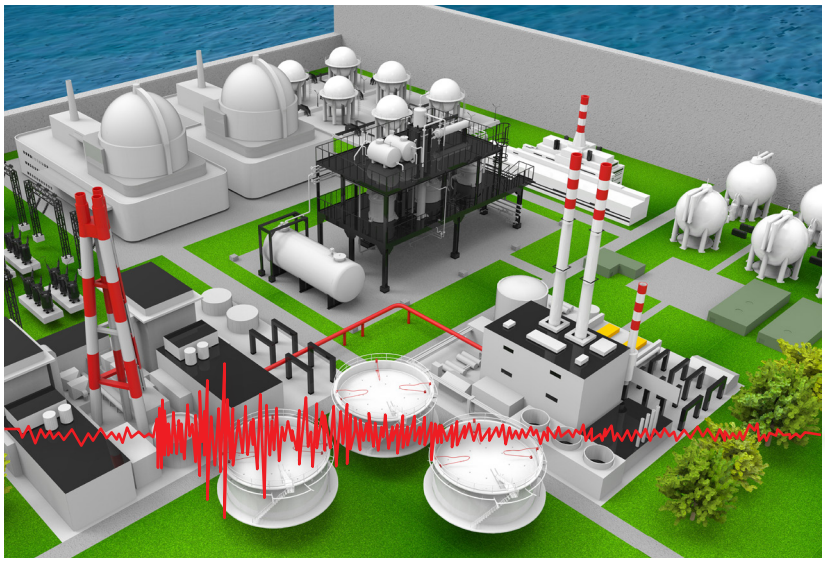


1. 일반 건축 익스펜션 조인트 구간의 설치 예
2. 면진구간에 설치된 각종 지진분리장치의 설치 예

왜 “JSF” 지진분리장치를 선택하는가?

- U,V,L-Type의 개발로 간섭에 대한 선택과 응용의 폭이 넓다.
- 구조가 간단하고 격동하는 지진동의 흡수가 우수하다.
- 좁은 공간의 설치가 용이하고 압력에 대한 수두차 작다.
- 추력이 작아서 설계 및 부대공사 시공비가 경제적이다.
- 강화된 브레이드 설계 채택으로 건전성이 우수하다.
- X, Y, Z의 “±” 모든 방향에 설치가 가능하다.
- 변위량 ±13mm ~ ±610mm 변위까지 사용 최고압력 20K로 인증되었다. **(국내 최고 압력 및 변위량)**
- 국내 유일하게 원자력발전소 및 관공서, 주요 데이터센터 등에서 선정하여 신뢰성이 높다.

INSTRUCTION



JRMS은 원자력발전소 및 화력발전소 내진소방에 선정 참여한 국내 유일의 회사입니다.

지진분리장치의 설치목적

지진분리장치는 지진발생시 건물의 지진분리이음 설치 및 건물과 건물을 연결하는 신축이음부나 연결구 등에서 발생하는 상대변위 발생에 대응하여 배관시스템을 보호하기 위하여 배관의 모든 방향에 대한 지진동 및 그 변위를 흡수 또는 분리(격리)하는 장치를 말한다.

지진분리장치의 법적 설치위치

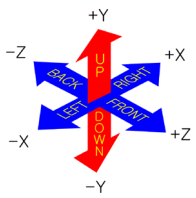
- 건물의 신축이음부를 통과하는 배관
- 건물과 건물을 건너뛰는 구간을 통과하는 배관
- 지반에서 건물로 통과하는 배관
- 면진건물의 면진구간을 통과하는 모든 배관
- 수조와 같이 지진동의 영향으로 손상이 우려되는 설비의 연결 배관

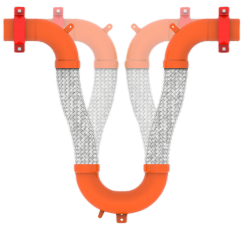
지진분리장치(JSF)의 설치대상

- 소화배관
- 음용수 및 일반용수 배관
- 기름 및 가스 배관
- 전선 배관
- 오폐수 및 우수 배관
- 원전 등 주요설비의 연결배관
- Plant의 과변위 신축이 요구되는 Thermal Expansion 적용

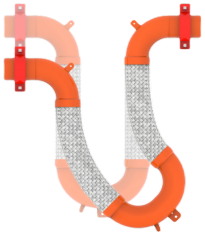
지진분리장치의 변위방향

JRMS 지진분리장치 U & V, L-Type은 X,Y,Z 방향의 "±" 전 방향에 대해 지진동의 변위를 흡수 또는 격리할 수 있으며, 소방시스템 및 음용수배관, 기름 및 가스배관, 오폐수관 등의 내진설계에 포괄적으로 적용할 수 있다.
JRMS 지진분리장치의 설치는 아래 그림과 같이 어느 방향 및 장소에서도 설치가 가능하다.





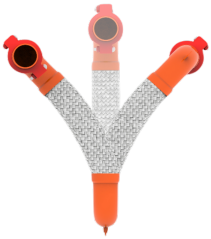
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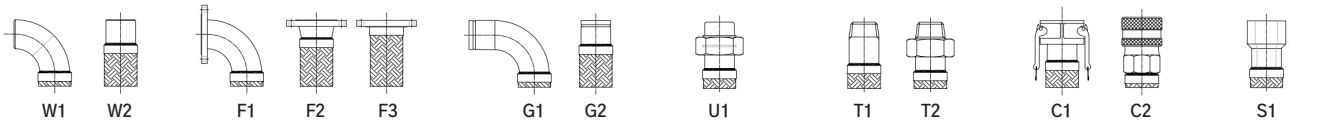
<평행 전후 변위:Z>



<평행 회전 변위:Θ>

지진분리장치의 연결구 선정

JRMS 지진분리장치는 현장의 설치환경에 따라 다양한 연결구를 선정하도록 인증되었다.
본 연결구의 선택은 지진분리장치 및 가요성이음(Flexible Hose) 등에 공히 적용된다.



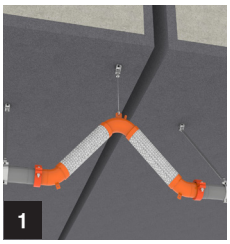
<Weld End> <Flange End> <Groove End> <Union End> <Thread End> <Coupling End> <Socket End>

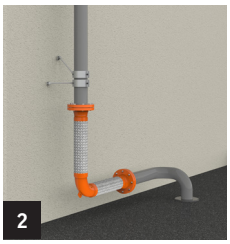
JSF의 설계 및 인증조건

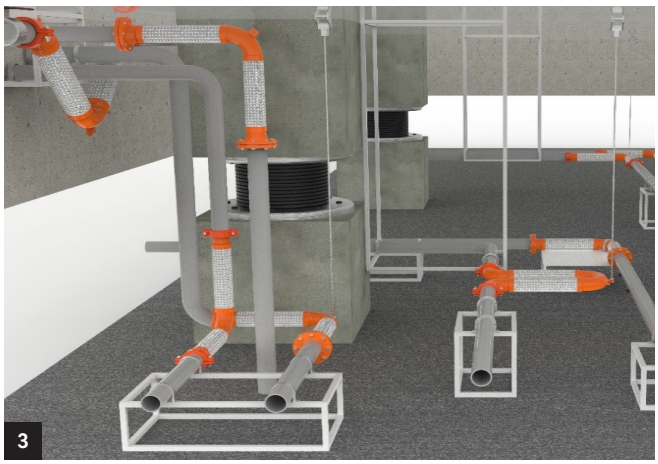
- **사용 최고압력** 21 Bar (25A~200A), 18 Bar (250~300A), 12 Bar (25A~300A)
- **인증 변위량** ±25mm, ±51mm, ±102mm, ±203mm, ±305mm, ±406mm, ±610mm
- **적용 연결구** Weld End (W1, W2), Flange End (F1, F2, F3), Groove End (G1, G2)
- **신축부 재질** Bellows (S.S300 Ser.), Wire Braid (S.S304)
- **적용 배관재질** KS & ANSI (C/S : SPP, SCH40 / S/S : SCH20S, SCH40S)

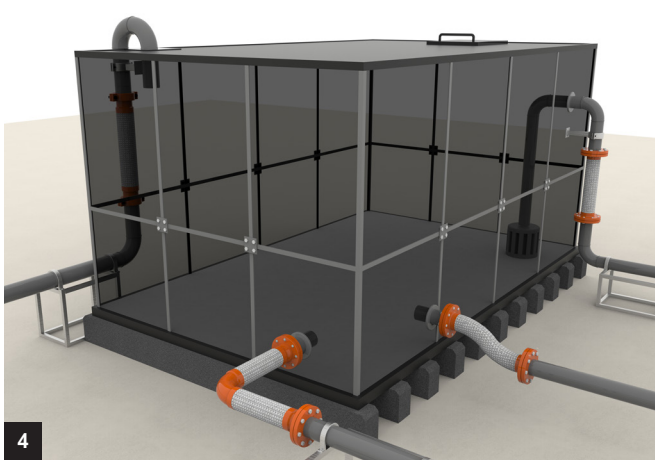
지진분리장치의 주요설치의 예

1 건물의 신축구간이나 연결구, 공동구를 통과하는 배관의 설치 예
2 지반에서 건물로 통과되는 배관의 설치 예
3 면진건물의 면진구간을 통과하는 모든 배관의 설치 예
4 수조 같이 지진동 충격파손 우려가 있는 설비의 연결배관 설치의 예


1


2

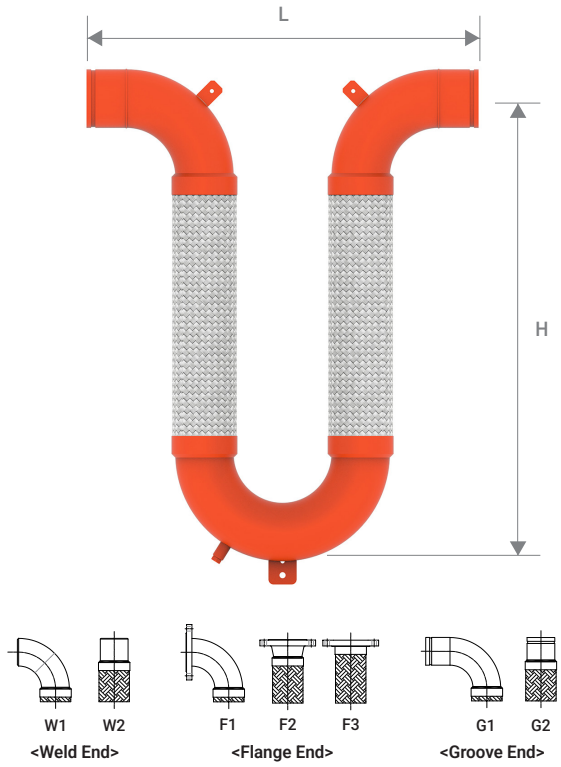

3


4

JRMS-Seismic Separation Flexible Technology

U-Type JSF XXXU

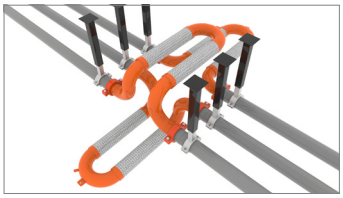
＊XXX = 최대압력값 (175psi / 220psi / 250pis / 300pis)



특징

① 건물의 신축구간 배관에 많이 적용합니다.
② 배관 추력이 작고 신축흡수가 우수합니다.
③ 하향, 상향 설치시 Vent의 적용이 필요합니다.





DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.5 MPa		
	1.8 MPa	SCH40	SCH40
	2.0 MPa		
S/S	1.2 MPa	SCH20S, 40S	SCH20S, 40S
	1.5 MPa		
	1.8 MPa		
	2.0 MPa		

일반변위 U - Loop Type : JSF300U, 250U, 220U, 175U

(Unit : mm)

Size		Movement 2" (±51mm)				Movement 4" (±102mm)				Movement 8" (±203mm)				Max. O.P
N.D	Inch	L (F to F)			H	L (F to F)			H	L (F to F)			H	KS / ANSI
		W1	F1	G1		W1	F1	G1		W1	F1	G1		Mpa
25	1"	202	212	302	273	242	252	342	333	352	362	452	536	1.2 / 1.5 / 2.0
32	1-1/4"	241	252	341	356	271	282	371	417	381	392	481	560	1.2 / 1.5 / 2.0
40	1-1/2"	279	289	379	439	299	309	399	499	399	409	499	645	1.2 / 1.5 / 2.0
50	2"	305	316	405	543	355	366	455	603	455	466	555	753	1.2 / 1.5 / 2.0
65	2-1/2"	381	395	481	587	431	445	531	707	501	515	601	860	1.2 / 1.5 / 2.0
80	3"	457	471	557	693	457	471	557	753	557	571	657	970	1.2 / 1.5 / 2.0
100	4"	610	625	710	782	610	625	710	902	660	675	760	1122	1.2 / 1.5 / 2.0
125	5"	762	778	862	932	762	778	862	1052	762	778	862	1275	1.2 / 1.5 / 2.0
150	6"	914	932	1044	1021	914	932	1044	1201	914	932	1044	1491	1.2 / 1.5 / 2.0
200	8"	1219	1240	1349	1259	1219	1240	1349	1439	1219	1240	1349	1669	1.2 / 2.0
250	10"	1524	1547	1684	1499	1524	1547	1684	1739	1524	1547	1684	1975	1.2 / 1.8
300	12"	1829	1853	1989	1736	1829	1853	1989	1916	1829	1853	1989	2280	1.2 / 1.8

과-변위 U - Loop Type : JSF300U, 250U, 220U, 175U

(Unit : mm)

Size		Movement 12" (±305mm)				Movement 16" (±406mm)				Movement 24" (±610mm)				Max. O.P
N.D	Inch	L (F to F)			H	L (F to F)			H	L (F to F)			H	KS / ANSI
		W1	F1	G1		W1	F1	G1		W1	F1	G1		Mpa
25	1"	452	462	552	586	552	562	652	693	752	762	852	863	1.2 / 1.5 / 2.0
32	1-1/4"	481	492	581	672	581	592	681	717	781	792	881	887	1.2 / 1.5 / 2.0
40	1-1/2"	499	509	599	755	599	609	699	859	799	809	899	909	1.2 / 1.5 / 2.0
50	2"	555	566	655	861	655	666	755	963	855	866	955	1008	1.2 / 1.5 / 2.0
65	2-1/2"	601	615	701	967	701	715	801	1067	901	915	1001	1107	1.2 / 1.5 / 2.0
80	3"	657	671	757	1075	757	771	857	1173	957	971	1057	1208	1.2 / 1.5 / 2.0
100	4"	760	775	860	1225	860	875	960	1322	1060	1075	1160	1352	1.2 / 1.5 / 2.0
125	5"	862	878	962	1377	962	978	1062	1532	1162	1178	1262	1607	1.2 / 1.5 / 2.0
150	6"	964	982	1094	1590	1064	1082	1194	1681	1264	1282	1394	1696	1.2 / 1.5 / 2.0
200	8"	1219	1240	1349	1829	1269	1290	1399	1979	1469	1490	1599	2039	1.2 / 2.0
250	10"	1524	1547	1684	2194	1524	1547	1684	2279	1674	1697	1834	2274	1.2 / 1.8
300	12"	1829	1853	1989	2495	1829	1853	1989	2636	1879	1903	2039	2671	1.2 / 1.8

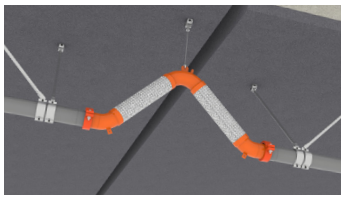
JRMS-Seismic Separation Flexible Technology

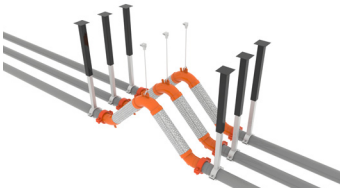
V-Type JSF XXXV

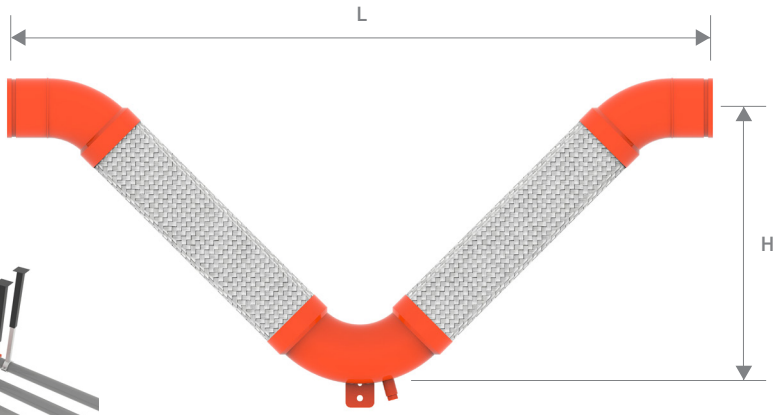
＊XXX = 최대압력값 (175psi / 220psi / 250pis / 300pis)

특징

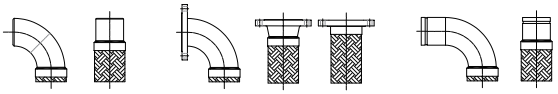
① 천장이나 건물의 간섭시 공간활용이 우수합니다.
② 복잡한 복렬배관에 설치에 효율적입니다.







DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.5 MPa		
	1.8 MPa	SCH40	SCH40
	2.0 MPa		
S/S	1.2 MPa	SCH20S, 40S	SCH20S, 40S
	1.5 MPa		
	1.8 MPa		
	2.0 MPa		



<Weld End> <Flange End> <Groove End>

일반변위 V - Loop Type : JSF300V, 250V, 220V, 175V

(Unit : mm)

Size		Movement 2" (±51mm)				Movement 4" (±102mm)				Movement 8" (±203mm)				Max. O.P
N.D	Inch	L (F to F)			H	L (F to F)			H	L (F to F)			H	KS / ANSI
		W1	F1	G1		W1	F1	G1		W1	F1	G1		Mpa
25	1"	362	372	462	166	447	457	547	209	734	744	834	352	1.2 / 1.5 / 2.0
32	1-1/4"	474	484	574	219	559	569	659	261	761	771	861	362	1.2 / 1.5 / 2.0
40	1-1/2"	586	597	686	270	671	682	771	312	879	890	979	416	1.2 / 1.5 / 2.0
50	2"	725	736	825	329	809	820	909	372	1022	1033	1122	478	1.2 / 1.5 / 2.0
65	2-1/2"	779	793	879	347	948	962	1048	432	1165	1179	1265	540	1.2 / 1.5 / 2.0
80	3"	917	931	1017	408	1002	1016	1102	451	1309	1323	1409	604	1.2 / 1.5 / 2.0
100	4"	1025	1040	1125	443	1195	1210	1295	528	1506	1521	1606	684	1.2 / 1.5 / 2.0
125	5"	1218	1234	1318	522	1387	1403	1487	607	1703	1719	1803	764	1.2 / 1.5 / 2.0
150	6"	1325	1342	1455	557	1580	1597	1710	685	1990	2007	2120	890	1.2 / 1.5 / 2.0
200	8"	1626	1646	1756	670	1880	1900	2010	797	2206	2226	2336	960	1.2 / 2.0
250	10"	1926	1949	2086	784	2266	2289	2426	954	2601	2624	2761	1121	1.2 / 1.8
300	12"	2227	2252	2387	896	2481	2506	2641	1024	2994	3019	3154	1280	1.2 / 1.8

과-변위 V - Loop Type : JSF300V, 250V, 220V, 175V

(Unit : mm)

Size		Movement 12" (±305mm)				Movement 16" (±406mm)				Movement 24" (±610mm)				Max. O.P
N.D	Inch	L (F to F)			H	L (F to F)			H	L (F to F)			H	KS / ANSI
		W1	F1	G1		W1	F1	G1		W1	F1	G1		Mpa
25	1"	805	815	905	388	956	966	1056	463	1197	1207	1297	583	1.2 / 1.5 / 2.0
32	1-1/4"	920	930	1020	441	983	993	1083	473	1224	1234	1324	593	1.2 / 1.5 / 2.0
40	1-1/2"	1034	1045	1134	487	1180	1191	1280	567	1251	1262	1351	602	1.2 / 1.5 / 2.0
50	2"	1174	1185	1274	554	1319	1330	1419	626	1382	1393	1482	658	1.2 / 1.5 / 2.0
65	2-1/2"	1316	1330	1416	616	1457	1471	1557	686	1514	1528	1614	715	1.2 / 1.5 / 2.0
80	3"	1457	1471	1557	679	1596	1610	1696	748	1646	1660	1746	773	1.2 / 1.5 / 2.0
100	4"	1652	1667	1752	757	1789	1804	1889	825	1831	1846	1931	846	1.2 / 1.5 / 2.0
125	5"	1847	1863	1947	836	2066	2082	2166	946	2172	2188	2272	999	1.2 / 1.5 / 2.0
150	6"	2129	2146	2259	959	2259	2276	2389	1024	2280	2297	2410	1035	1.2 / 1.5 / 2.0
200	8"	2432	2452	2562	1073	2644	2664	2774	1179	2729	2749	2859	1221	1.2 / 2.0
250	10"	2909	2932	3069	1275	3029	3052	3189	1336	3022	3045	3182	1332	1.2 / 1.8
300	12"	3299	3324	3459	1432	3499	3524	3659	1533	3549	3574	3709	1558	1.2 / 1.8

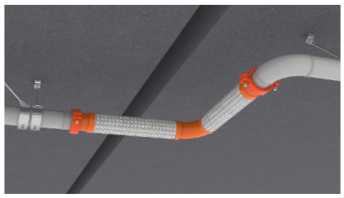
JRMS-Seismic Separation Flexible Technology

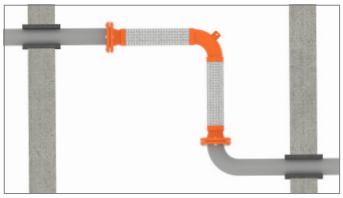
L-Type JSF XXXL

＊XXX = 최대압력값 (175psi / 220psi / 250pis / 300pis)

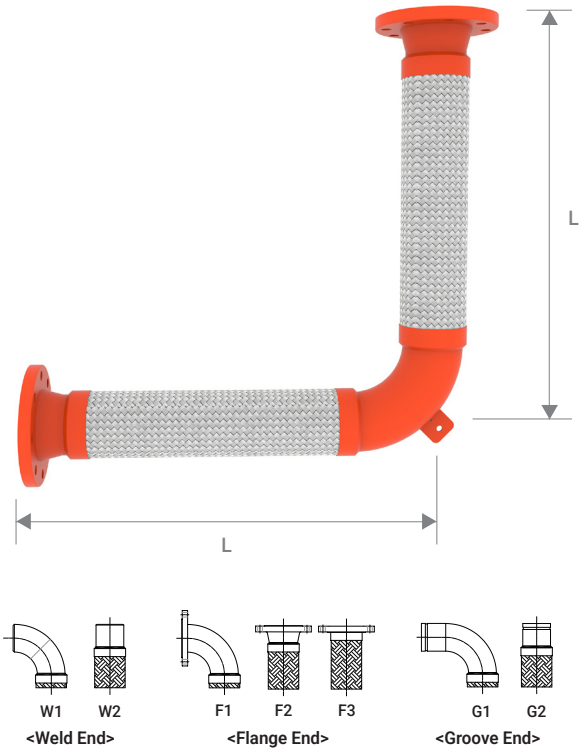
특징

① 수직, 수평배관 모두 공간활용이 극히 우수합니다.
② 복잡한 복렬배관의 설치에 가장 효율적입니다.
③ 각 Type 중 면진구간의 설치에 가장 우수합니다.
④ U & V보다 Spring Rate가 가장 작아 유연합니다.





DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.5 MPa		
	1.8 MPa	SCH40	SCH40
	2.0 MPa		
S/S	1.2 MPa	SCH20S, 40S	SCH20S, 40S
	1.5 MPa		
	1.8 MPa		
	2.0 MPa		



일반변위 L - Loop Type : JSF300L, 250L, 220L, 175L

(Unit : mm)

Size		Movement 2" (±51mm)			Movement 4" (±102mm)			Movement 8" (±203mm)			Max. O.P
N.D	Inch	L (F to F)			L (F to F)			L (F to F)			KS / ANSI
		W2	F2	G2	W2	F2	G2	W2	F2	G2	Mpa
25	1"	268	274	268	328	334	328	352	362	452	1.2 / 1.5 / 2.0
32	1-1/4"	338	346	338	398	406	398	381	392	481	1.2 / 1.5 / 2.0
40	1-1/2"	407	419	407	467	479	467	399	409	499	1.2 / 1.5 / 2.0
50	2"	486	500	486	546	560	546	455	466	555	1.2 / 1.5 / 2.0
65	2-1/2"	505	525	505	625	645	625	501	515	601	1.2 / 1.5 / 2.0
80	3"	584	604	584	644	664	644	557	571	657	1.2 / 1.5 / 2.0
100	4"	622	649	622	742	769	742	660	675	760	1.2 / 1.5 / 2.0
125	5"	721	760	721	841	880	841	762	778	862	1.2 / 1.5 / 2.0
150	6"	774	798	774	954	978	954	914	932	1044	1.2 / 1.5 / 2.0
200	8"	910	947	910	1090	1127	1090	1219	1240	1349	1.2 / 2.0
250	10"	1061	1083	1061	1301	1323	1301	1524	1547	1684	1.2 / 1.8
300	12"	1197	1232	1197	1377	1412	1377	1829	1853	1989	1.2 / 1.8

■ Movement 8"(±203mm 인증 필) 치수는 별도 문의 바람
■ ±13mm, ±25mm 별도 문의 바람

과-변위 L - Loop Type : JSF300U, 250U, 220U, 175U

(Unit : mm)

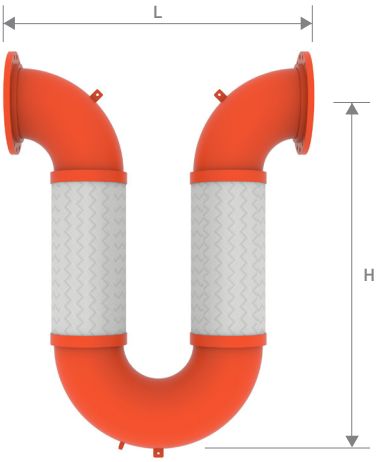
Size		Movement 12" (±305mm)			Movement 16" (±406mm)			Movement 24" (±610mm)			Max. O.P
N.D	Inch	L (F to F)			L (F to F)			L (F to F)			KS / ANSI
		W2	F2	G2	W2	F2	G2	W2	F2	G2	Mpa
25	1"	581	587	581	688	694	688	858	864	858	1.2 / 1.5 / 2.0
32	1-1/4"	653	661	653	698	706	698	868	876	868	1.2 / 1.5 / 2.0
40	1-1/2"	724	736	724	827	839	827	877	889	877	1.2 / 1.5 / 2.0
50	2"	804	818	804	906	920	906	951	965	951	1.2 / 1.5 / 2.0
65	2-1/2"	885	905	885	985	1005	985	1025	1045	1025	1.2 / 1.5 / 2.0
80	3"	966	986	966	1064	1084	1064	1099	1119	1099	1.2 / 1.5 / 2.0
100	4"	1064	1092	1064	1162	1189	1162	1192	1219	1192	1.2 / 1.5 / 2.0
125	5"	1166	1205	1166	1321	1360	1321	1396	1435	1396	1.2 / 1.5 / 2.0
150	6"	1342	1366	1342	1434	1458	1434	1449	1473	1449	1.2 / 1.5 / 2.0
200	8"	1480	1517	1480	1630	1667	1630	1690	1727	1690	1.2 / 2.0
250	10"	1756	1778	1756	1841	1863	1841	1836	1858	1836	1.2 / 1.8
300	12"	1955	1990	1955	2097	2132	2097	2132	2167	2132	1.2 / 1.8

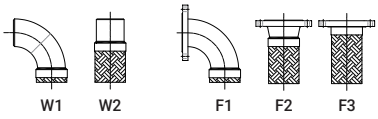
■ F1 : End Pipe & Flange, F2 : WNRF Flange

JRMS-Seismic Separation Flexible Technology

U-Type JSF XXXLU

＊XXX = 최대압력값 (175psi / 230psi / 250pis / XXXpis)





<Weld End> <Flange End>

특징

① 건물의 송수구나 저층 신축 구간의 배관에 많이 적용합니다.
② 배관 추력이 작고 신축 흡수가 우수합니다.
③ Shot Elbow 설계로 공간 활용이 용이합니다.
④ 본 제품의 Protection은 Wire(W) 또는 Ribon(R) Braid로 설계·제작합니다.

DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.6 MPa		
	1.8 MPa		
S/S	1.2 MPa	SCH20 & SCH40	SCH20 & SCH40
	1.6 MPa		
	1.8 MPa		

대구경 U - Loop Type : JSF175LU, 230LU, 250LU

(Unit : mm)

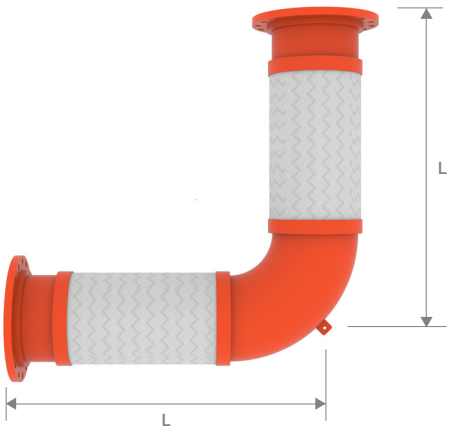
Size		Movement 2" (±51mm)				Movement 4" (±102mm)				Movement 8" (±203mm)				Max. O.P
N.D	Inch	L (F to C)				L (F to C)				L (F to C)				KS / ANSI
		W1	F1	G1	H	W1	F1	G1	H	W1	F1	G1	H	Mpa
350	14"	1422	1448	-	1789	1422	1448	-	2029	1422	1488	-	2260	1.2 / 1.6 / 1.8
400	16"	1626	1652	-	2036	1626	1652	-	2366	1626	1652	-	2660	1.2 / 1.6 / 1.8
450	18"	1829	1855	-	2331	1829	1855	-	2695	1829	1855	-	3050	1.2 / 1.6 / 1.8
500	20"	2032	2060	-	2524	2032	2060	-	2920	2032	2060	-	3330	1.2 / 1.6 / 1.8
600	24"	2438	2460	-	2877	2438	2460	-	3306	2438	2460	-	3730	1.2 / 1.6 / 1.8

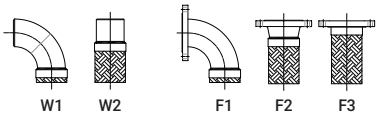
■ 350A : W(Wire), R(Ribbon) / Other Size : R(Ribbon) ■ 제품 길이는 압력 및 변위량에 따라 변경 가능

JRMS-Seismic Separation Flexible Technology

L-Type JSF XXXLL

＊XXX = 최대압력값 (175psi / 230psi / 250pis / XXXpis)





<Weld End> <Flange End>

특징

① 건물의 송수구나 저층 신축 구간 및 펌프실 연결배관에 적용이 편리합니다.
② 배관 추력이 작고 신축흡수가 우수합니다.
③ Shot Elbow 설계로 공간 활용이 용이합니다.
④ 본 제품의 Protection은 Wire(W) 또는 Ribon(R) Braid로 설계·제작합니다.

DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.6 MPa		
	1.8 MPa		
S/S	1.2 MPa	SCH20 & SCH40	SCH20 & SCH40
	1.6 MPa		
	1.8 MPa		

대구경 L-Dog Leg Type : JSF 175LL, 230LL, 250LL

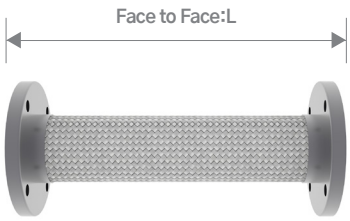
(Unit : mm)

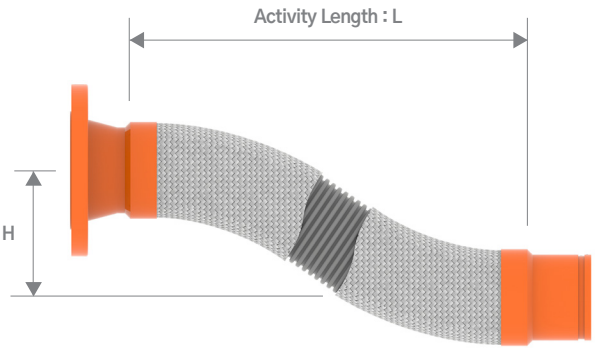
Size		Movement 2" (±51mm)		Movement 4" (±102mm)		Movement 8" (±203mm)		Max. O.P
N.D	Inch	L (F to C)		L (F to C)		L (F to C)		KS / ANSI
		W1	F2	W1	F2	W1	F2	Mpa
350	14"	1405	1420	1648	1663	1888	1903	1.2 / 1.6 / 1.8
400	16"	1576	1591	1909	1924	2239	2254	1.2 / 1.6 / 1.8
450	18"	1795	1810	2161	2176	2525	2540	1.2 / 1.6 / 1.8
500	20"	1962	1977	2361	2376	2766	2781	1.2 / 1.6 / 1.8
600	24"	2165	2180	2594	2609	3023	3038	1.2 / 1.6 / 1.8

■ 350A : W(Wire), R(Ribbon) / Other Size : R(Ribbon) ■ 제품 길이는 압력 및 변위량에 따라 변경 가능

H-Type : JSF XXXH

FM APPROVED

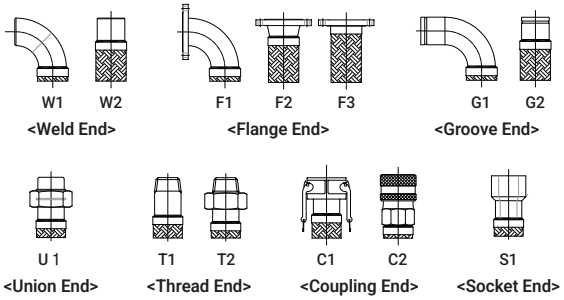




특징

① 지진분리장치와 동일한 내구성 설계되었습니다.
② 멀티벨로즈 설계로 압력대비 유연합니다.
③ 다양한 연결구를 적용·공급합니다.
(Weld End, Flange, Thread, Groove, Union, Coupling, Socket Etc.)

DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.2 MPa	SPP & SCH40	STD & SCH40
	1.5 MPa		
	1.8 MPa	SCH40	SCH40
	2.0 MPa		
S/S	1.2 MPa	SCH20S, 40S	SCH20S, 40S
	1.5 MPa		
	1.8 MPa		
	2.0 MPa		



가요성이음 FJ - Earthquake Flexible Joint

(Unit : mm)

Size		Max. Lateral Deflection Movement : Y & Z									Max. O.P
N.D	Inch	1/2"(13)			1" (25)			2" (51)			KS / ANSI
		F2(SO)	W2	G2	F2(SO)	W2	G2	F2(SO)	W2	G2	Mpa
25	1"	200	300	300	290	390	390	490	590	590	1.5 / 2.0
32	1-1/4"	200	300	300	290	390	390	540	640	640	1.5 / 2.0
40	1-1/2"	220	320	320	290	390	390	540	640	640	1.5 / 2.0
50	2"	220	320	320	290	390	390	640	740	740	1.5 / 2.0
65	2-1/2"	220	320	320	290	390	390	700	800	800	1.5 / 2.0
80	3"	240	340	340	330	430	430	750	850	850	1.5 / 2.0
100	4"	240	340	340	430	530	530	800	900	900	1.5 / 2.0
125	5"	280	380	380	450	550	550	860	960	960	1.5 / 2.0
150	6"	280	410	410	460	590	590	910	1040	1040	1.5 / 2.0
200	8"	300	430	430	490	620	620	960	1090	1090	1.2 / 2.0
250	10"	300	460	460	520	680	680	1070	1230	1230	1.2 / 1.8
300	12"	300	460	460	570	730	730	1180	1340	1340	1.2 / 1.8

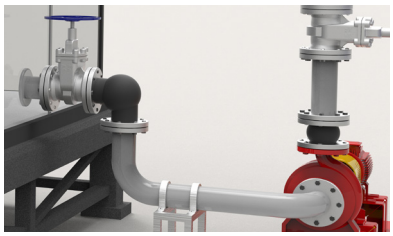
■ 본 치수는 F3 치수(L) 표준입니다. 수조 및 설비 특성에 따라 W1 & F2, G2 Type을 요청시 치수는 별도 문의 바랍니다.

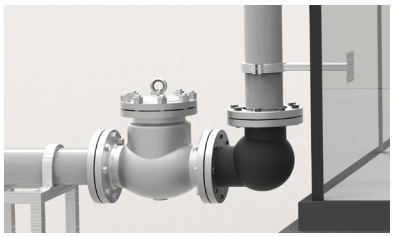
Flexible 기본변위 - Activity Length of Flexible Hose

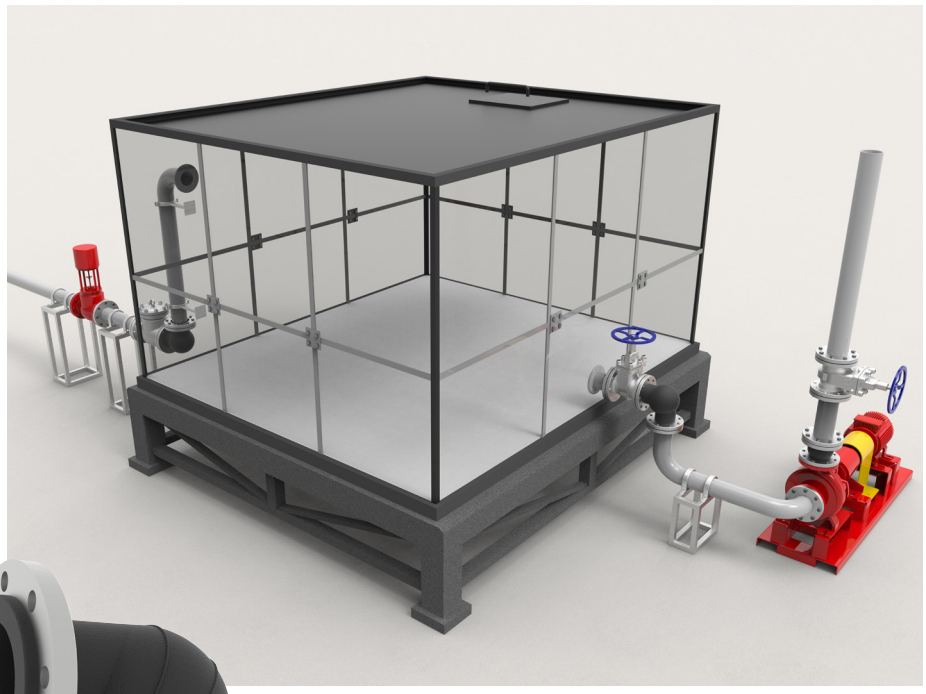
(Unit : mm)

Size		Max. Lateral Deflection Movement : Y & Z									Max. O.P
N.D	Inch	Activity Flexible Length : L (Basic)									KS / ANSI
		1"(25)	2"(51)	4"(102)	6"(152)	8"(203)	10"(254)	12"(305)	14"(356)	16"(406)	Mpa
25	1"	250	450	500	600	700	800	900	1000	1100	1.5 / 2.0
32	1-1/4"	250	500	600	700	800	900	1000	1100	1200	1.5 / 2.0
40	1-1/2"	250	500	600	700	800	900	1000	1100	1200	1.5 / 2.0
50	2"	250	600	700	800	900	1000	1100	1200	1300	1.5 / 2.0
65	2-1/2"	250	650	800	900	1000	1100	1200	1300	1400	1.5 / 2.0
80	3"	280	700	800	1000	1100	1200	1300	1400	1500	1.5 / 2.0
100	4"	290	750	900	1100	1200	1300	1400	1500	1600	1.5 / 2.0
125	5"	350	800	1000	1200	1300	1400	1500	1600	1800	1.5 / 2.0
150	6"	400	850	1200	1300	1400	1500	1600	1800	1900	1.5 / 2.0
200	8"	430	900	1200	1400	1500	1700	1800	1900	2100	1.2 / 2.0
250	10"	450	1000	1400	1500	1700	2000	2100	2200	2300	1.2 / 1.8
300	12"	500	1100	1400	1700	1900	2200	2300	2500	2600	1.2 / 1.8

LR-Type : WT-A(B) 150LR, 230LR









<A-TYPE>



<B-TYPE>

DIV'D		End Fitting Material	
		KS	ANSI
C/S	1.0 MPa	KS 10K	ANSI #150
	1.6 MPa	KS 20K	ANSI #300
S/S	1.0 MPa	KS 10K	ANSI #150
	1.6 MPa	KS 20K	ANSI #300
Flange Surface		C/S : E-Galve'	
Rubber Bellows		Bellows	
		NR or EPDM	
Desin Temp.		-15℃ ~ 115℃	
Vaccum		400mmAq, 650mmAq(16K)	

특징

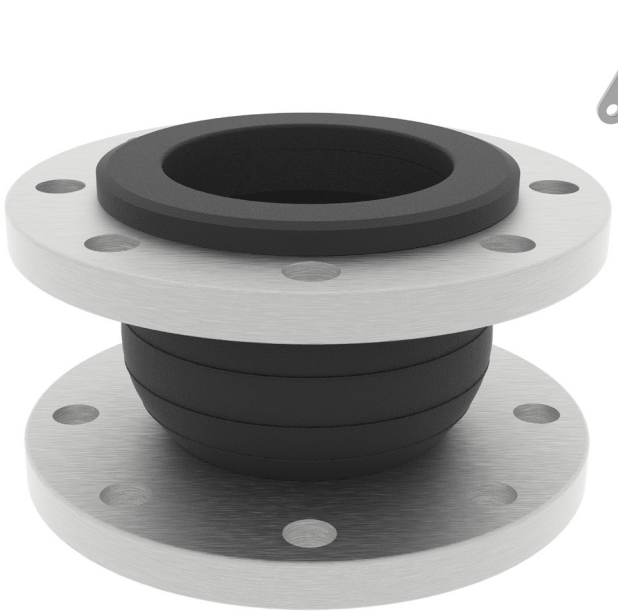
① 수조나 배관 단부의 진동, 변위량 흡수에 특화하여 TPC 및 일반 금속제품의 단점을 보완하여 설계 되었습니다.
② 고무제품으로 특히 진동흡수가 우수하고 유연하여 설비를 진동 및 충격으로부터 보호합니다.
③ 연결구는 주문에 따라 KS & ANSI FLANGE로 C/S, S/S 재질과 Rubber는 NR 및 EPDM으로 공급 합니다.
④ 내열온도 EPDM -15℃~115℃, 진공압력 -400mmAq, & -650mmAq(16K)를 보증 합니다.

LR-형 고무 가요성이음 Rubber Expantion Joint

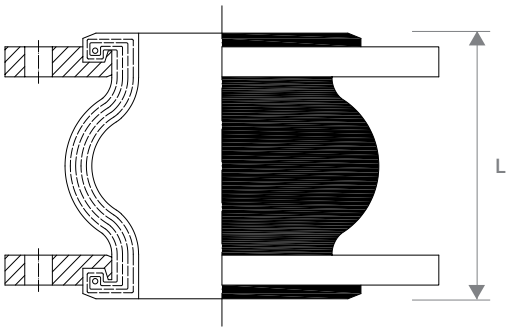
(Unit : mm)

WT-A							WT-B						
N.D	Inch	Leng.	Movement			D.P	N.D	Inch	Leng.	Movement			D.P
		A/B	Axial	Laterial	Angle(±)	Mpa			A/B	Axial	Laterial	Angle(±)	Mpa
50	2"	150	20	16	10	1.0	50	2"	140	20	16	10	1.0, 1.6
65	2-1/2"	150	20	16	10	1.0	65	2-1/2"	140	20	16	10	1.0, 1.6
80	3"	160	20	16	10	1.0	80	3"	150	20	16	10	1.0, 1.6
100	4"	170	20	16	10	1.0	100	4"	160	20	16	10	1.0, 1.6
125	5"	200	20	16	10	1.0	125	5"	180	20	16	10	1.0, 1.6
150	6"	230	20	16	10	1.0	150	6"	210	20	16	10	1.0, 1.6
200	8"	265	20	16	10	1.0	200	8"	230	20	16	10	1.0, 1.6
250	10"	280	20	16	10	1.0	250	10"					
300	12"	320	20	16	10	1.0	300	12"					

SR-Type : JSF150SR, 300SR







Flange Rating		Flange Material	
		KS	ANSI
C/S	1.0 MPa	SS275	SS275 or A36
	2.0 MPa		
S/S	1.0 MPa	STS304	A240-304
	2.0 MPa		
Flange Surface		C/S : E-Galv' or Paint	
Rubber Bellows		Bellows	
		NR or EPDM	
Desin Temp.		-15℃ ~ 115℃	
Vaccum		400mmAq, 650mmAq(20K)	

특징

① Flange Loose Type Rubber Expansion Joint입니다.
② 금속형 TPC보다 전동 전달 억제가 우수합니다
③ 유체에 적합한 고무,보강 재질을 선정할 수 있습니다.
④ 연결구는 주문에 따라 KS & ANSI FLANGE로 C/S, S/S 재질과 Rubber는 NR 및 EPDM으로 공급 합니다.
⑤ 내열온도 EPDM -15℃~115℃, 진공압력 -400mmAq, & -650mmAq(20K)를 보증 합니다.
⑥ 단, Holder & Control Rod는 옵션입니다.

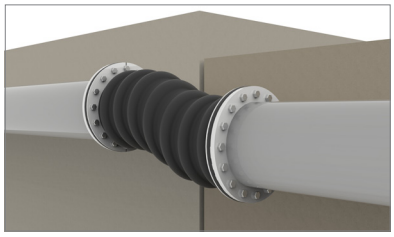
SR-형 고무 가요성이음 - Rubber Pump Compensator

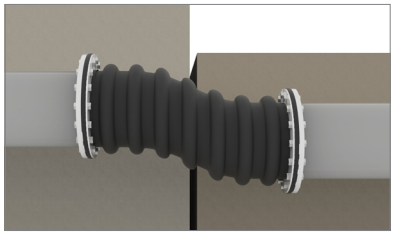
(Unit : mm)

D.N	Inch	Length	Movement (mm)				Control Rod / Holder (Option)	
		L	Axial Ext.	Axial Exp.	Lateral	Angular	1.0 Mpa	1.6, 2.0 Mpa
32	1-1/4"	95	7	9	9	15°	2-M16 / 8T	2-M16 / 8T
40	1-1/2"	95	7	10	9	15°	2-M16 / 8T	2-M16 / 8T
50	2"	105	8	10	10	15°	2-M16 / 8T	2-M16 / 8T
65	2-1/2"	115	10	13	11	15°	2-M16 / 8T	2-M16 / 9T
80	3"	135	12	15	12	15°	2-M16 / 8T	2-M16 / 9T
100	4"	150	12	19	13	15°	2-M16 / 9T	2-M16 / 9T
125	5"	165	16	19	13	15°	2-M16 / 9T	2-M16 / 9T
150	6"	180	16	20	14	15°	2-M16 / 9T	2-M20 / 12T
200	8"	210	16	25	22	10°	2-M20 / 12T	2-M20 / 14T
250	10"	230	16	25	22	10°	3-M20 / 12T	3-M22 / 14T
300	12"	245	16	25	22	10°	4-M20 / 14T	4-M22 / 15T
350	14"	255	16	25	22	10°	4-M20 / 14T	4-M22 / 16T
400	16"	255	16	25	22	10°	4-M20 / 14T	4-M22 / 16T
450	18"	255	16	25	22	5°		
500	20"	255	16	25	22	5°	＊이하는 별도 문의	
600	24"	260	16	25	22	5°		

UR-Type : JSF150UR, 300UR (230UR)







DIV'D		Flange Material	
		KS	ANSI
C/S	1.0 MPa	SS275 E-Gal'v	SS275 or A36 E-Gal'v
	2.0 MPa		
S/S	1.0 MPa	STS304	A240-304
	2.0 MPa		
Flange Surface		Tar Epoxy Paint	
Rubber Bellows		Bellows	
		KS	ANSI
Desin Temp.		-15℃ ~ 115℃	
Vaccum		-700mmAq	

특징

① 국내 제조 Under Ground Rubber Exp. Joint입니다.
② 지하 1.5~3.1m 토압기준으로 설계됩니다.
③ 유체에 적합한 고무,보강 재질을 선정할 수 있습니다.
④ 지하에서 건물로 송수되는 관의 처짐이나 지반 침하 장소의 배관보호에 적용합니다.
⑤ 연약지반, 교량전후 배관, 하천/도로/선로 횡방향 내진배관에 사용됩니다.

UG-형 지반침하 및 내진 Rubber Flexible Hose

(Unit : mm)

D.N	C/S R-Ring T		JSF150UG, 300UG-M12 (305mm)Control Rod / Holder (Option)							JSF150UG, 300UG-M16 (406mm)						
	20K	10K	Length	Expan.	Txten.	Lateral	Angle	Torsion	Corr	Length	Expan.	Txten.	Lateral	Angle	Torsion	Corr
32	10	9	550	-40	+50	300	30	12	5	750	-40	+70	400	30	12	7
40	10	9	550	-40	+50	300	30	12	5	750	-40	+70	400	30	12	7
50	10	9	550	-40	+50	300	30	12	5	750	-40	+70	400	30	12	7
65	10	9	600	-40	+50	300	30	12	5	750	-40	+70	400	30	12	7
80	10	9	650	-40	+50	300	30	12	5	750	-40	+70	400	30	12	6
100	10	9	650	-40	+50	300	30	12	5	750	-40	+70	400	30	12	6
125	12	9	650	-40	+50	300	30	12	5	750	-40	+70	400	30	12	6
150	12	9	650	-50	+50	300	30	12	5	800	-50	+70	400	30	12	6
200	12	9	700	-50	+70	300	30	12	5	800	-50	+90	400	30	12	6
250	12	9	700	-50	+70	300	30	12	5	850	-50	+90	400	30	12	7
400	12	9	750	-50	+70	300	20	12	5	900	-50	+90	400	20	12	7
450	15	10	800	-60	+70	300	20	12	5	950	-60	+90	400	20	12	7
500	15	10	900	-60	+70	300	15	12	5	1100	-60	+90	400	20	12	7
600	15	10	900	-60	+70	300	15	12	5	1100	-60	+90	400	15	12	7

■ STS R-Ring은 Thic'k를 -1mm 적용 ■ Bellows산수는 Arch 치수에 따라 변경 가능

UG Rubber Bellows Material 및 Fluid 적용

(Unit : mm)

Model	Flange or R-Ring		Bellows Mat'l			MFG Size (A)	Design Data			Application Flow Medium
	Materal	Type	"Inner Rubber"	"Reinfo. Ply"	"Outer Rubber"		D.P (Mpa)	D.T (℃)	T.P (Mpa)	
UG-C	C/S or STS	Fix or Loose	CR	Code & Wire	CR	25~400	F.V/1.0	90	1.5	Fire Water, Sea Water, Fresh Water, Etc.
							F.V/2.0	90	3	
UG-N	C/S or STS	Fix or Loose	NBR	Code & Wire	NBR	25~400	F.V/1.0	90	1.5	Fire Water, Lub-Oil, Fuel Oil, Hydraulic Oil, Etc.
							F.V/2.0	90	3	
UG-E	C/S or STS	Fix or Loose	EPDM	Code & Wire	EPDM	25~400	F.V/1.0	110	1.5	Fire Water, Sea Water, Fresh Water, Hot Water Etc.
							F.V/2.0	110	3	

Certificate of Compliance

UL / U-Type, V-Type, L-Type 지진분리장치

- Certificate No EX28836
- Report Reference EX28836-20221027
- Approved Size 25A~200A(250A~300A)
- Approved Rating #300 (#250)
- Approved Movement ±25, ±51, ±102, ±203, ±305, ±406, ±610mm
- Approved Connection Weld, Groove, Flange

- Certificate No UL-US-2309418-1 (EX28836)
- Report Reference EX28836-20221027
- Approved Size 25A~300A
- Approved Rating #175
- Approved Movement ±25, ±51, ±102, ±203, ±305, ±406, ±610mm
- Approved Connection Weld, Groove, Flange


CERTIFICATE OF COMPLIANCE

Certificate Number EX28836
Report Reference EX28836-20221027
Date 2022-November-03

Issued to: JRMS Co Ltd
M2012, Paragon Square, 249 Sunhwagung-ro
Namyangju-si Gyeonggi-do 12106 KR

This is to certify that representative samples of: FITTINGS, ACCESSORY
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: Refer Addendum page for standards

Additional Information: See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.


Certificate of Compliance

Certificate Number: UL-US-2309418-1

Report Reference: EX28836-20221027

Issue Date: 2025-10-27

Issued to:
JRMS Co Ltd
M2012, Paragon Square, 249 Sunhwagung-ro Namyangju-si, Gyeonggi-do 12106
Republic of Korea

This certificate confirms that representative samples of:
VIYY - Fittings, Accessory

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the Standard(s) indicated on this Certificate.

UL 213, Edition: 5, Issue Date: 2019-7-12, Revision Date: 2023-10-17

Additional Information:
See UL Product iQ® at https://iq.ulprospector.com for additional information.

This Certificate of Compliance indicates that representative samples of this product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

UL Solutions

David Plecuth
UL Mark Certification Program Owner

FM / U-Type, V-Type, L-Type, (H-Type) 지진분리장치 (가요성이음장치)

- Certificate No PR465830
- Report Reference FM 1290
- Approved Size 25A~300A & (250A~300A) – L & H
- Approved Rating #175, #300 (#250)
- Approved Movement ±25, ±51, ±102, ±203, ±305, ±406, ±610mm
- Approved Connection Weld, Groove, Flange

- Certificate No PR475939
- Report Reference FM 1290
- Approved Size 25A~150A & (200A~300A) – U & V
- Approved Rating #220, (#175)
- Approved Movement ±25, ±51, ±102, ±203, ±305, ±406, ±610mm
- Approved Connection Weld, Groove, Flange


FM Approvals

Certificate of Compliance

This certificate is issued for the following:

Pipe Couplings and Fittings for Aboveground Fire Protection Systems

"L" Type Expansion and In-Line Flexible Joints

Prepared for:

JRMS Co., Ltd.
M2012 Paragon Square 249
Sunhwagung-ro
Namyangju-si, Gyeonggi-do, 12106
Korea, Republic of

Approval Standard: FM 1920 (November 2007)

Approval Identification: PR465830 Approval Granted: 28 July 2025

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

David B. Fuller
VP, Manager – Fire Protection
FM Approvals
One Technology Way
Norwood, MA 02062

FM APPROVED


FM Approvals

Certificate of Compliance

This certificate is issued for the following:

Pipe Couplings and Fittings for Aboveground Fire Protection Systems

Models JSF175 and JSF220 Expansion Joints
Sizes 1 through 12 inches

Prepared for:

JRMS Co., Ltd.
M2012 Paragon Square 249
Sunhwagung-ro, Namyangju-si
Gyeonggi-do, 12106,
Republic of Korea

Approval Standard: FM 1920 (November 2007)

Approval Identification: PR475939 Approval Granted: 20 April 2026

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

David B. Fuller
VP, Manager – Fire Protection
FM Approvals
One Technology Way
Norwood, MA 02062

FM APPROVED

Certificate of Compliance & Test Reports

KFI / U-Type 지진분리장치

- Certificate No 분리25-8
- Test Report No. 202501044
- Approved Size 50A~300A
- Approved Rating 1.2 Mpa
- Approved Movement ±102mm
- Approved Connection Groove End


KFI 인 증 서


검 사 성 적 서



KFI / U-Type 지진분리장치

- Certificate No 분리24-2
- Test Report No. 202400937
- Approved Size 25A~200A
- Approved Rating 2.0 Mpa
- Approved Movement ±102mm
- Approved Connection Groove End


KFI 인 증 서


검 사 성 적 서



Certificate of Compliance & Test Reports

KFI / U-Type 지진분리장치

- Certificate No 분리24-1
- Test Report No. 202400936
- Approved Size 200A~300A
- Approved Rating 1.2 Mpa
- Approved Movement ±102mm
- Approved Connection Groove End


KFI 인 증 서


검 사 성 적 서



KFI / U-Type 지진분리장치

- Certificate No 분리23-4
- Test Report No. 202301008
- Approved Size 50A~150A
- Approved Rating 1.5 Mpa
- Approved Movement ±102mm
- Approved Connection Groove End


KFI 인 증 서

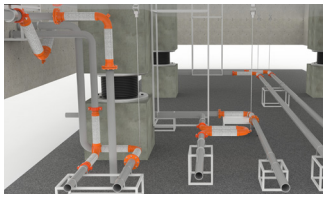

검 사 성 적 서



JRMS

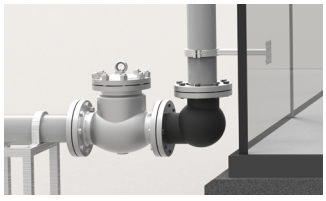
Earthquake Isolation Technology

생산 및 취급품목



배관 내진시스템

- 지진분리장치(U-Loop,V-Loop,L-Dog Leg)
- 가요성이음장치
- RUBBER PUMP CONNECTOR(KC)
- DUCT JABARA



수조 내진 시스템

- RUBBER PUMP CONNECTOR(KC)



태양광 화재방호 시스템

- PVStop 소화기



플랜트 화재방호 시스템

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- EDWARDS 화재경보 시스템
- KIDDE 청정 소화약제
- Viking Electronics 화재경보 시스템
- Tyco NG-2 Nitrogen Generator



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본사 경기도 남양주시 순화궁로 249 별내파라곤스퀘어 M-2012 | **TEL** 031-931-1440 | **FAX** 031-931-1442
공장 경기도 안산시 단원구 시화로 250 (성곡동 717-7) | **TEL** 031-488-9116 | **FAX** 031-488-9118
WEB www.jrms.co.kr | **Mail** jrms@jrms.co.kr(대표메일), jsf@jrms.co.kr(제품문의메일)