



CONNECTALL

RUBBER EXPANSION JOINTS

Connectall Rubber Expansion Joints, manufactured of rubber & metal connectors are installed between the anchor points of piping systems or next to mechanical equipment such as pumps, heating, air conditioning, chillers, compressors, absorption machines... etc. Often found in apartment buildings, hotels, hospitals, and airport building piping, chemical and industrial process piping systems. Connectall provides single and multiple arch rubber expansion joints and the flanges are carbon steel/stainless steel drilled such as AS 2129 BS Table A to T, ANSI B 16.5 150#, 300#, DIN 2501, ISO 7005, BS 4504, JIS B 2210, etc. or other standard drillings to your specifications.

CONNECTALL

Visit our web site at: www.connectallltd.com

STYLE CRJ-10 SINGLE-SPHERE CONNECTORS

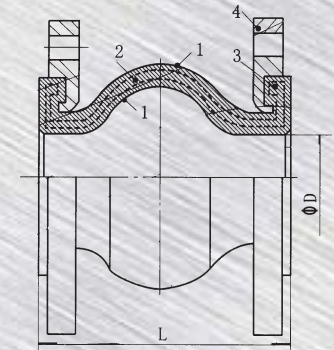
STRUCTURE

Item No	Part	Material
1	Body	CR, EPDM, IIR, NBR, CSM, VITON
2	Reinforcement	Nylon Cord Fabric
3	Wire	Hard Steel Wire
4	Floating Flange	Mild Steel Zinc Plated RST 37-2

Flanges drillings: Available ANSI B 16.5, DIN 2501, JIS B 2210, BS 4504, AS 2129, ISO 7005, etc. and welcome other standard drillings to your specifications.



Style CRJ-10



FEATURES

1. Four way greater movements provide high level of installation flexibility.
2. Precision molded of synthetic rubber reinforced with nylon cord.
3. Excellent ability to absorb vibration and sound, withstands high pressures.
4. Withstands chemical corrosion, and resists acid and ozone attack.
5. Easy to install, uses floating flanges.

APPLICATION

Colour Code	Tube in Material	Cover out Material	Application
Blue	Neoprene	Neoprene	Excellent Aging resistance, for alkaline and acid salt solutions and aldehydes.
Red	EPDM	EPDM	Higher temp. good ozone resistance, resilience, bend easier lower temp, but not suitable for oils.
Black	Butyl	Butyl	Lower impermeable; resistant to ozone, weather, abrasion, chemicals.
Yellow	Nitrile	Neoprene	Recommended for oils, greases, petroleum, fats, glycos, alcohols, ethers and gas.
White	Nitrile	Nitrile	For drinking water or food grade white color quality up to 150 psi/10bar at 158°F/70°C.
Green	Hypalon	Hypalon	Ozone resistance sunlight stable, for strong acids, alkalis and chemicals.

SPECIFICATION

Nominal Dia.	Dash Size	Face to Face	Temp. °F	Travel Inches	Allowable Movement (In.)				Pressure	
					Axial Compression	Axial Extension	Lateral Deflection	Angular Deflection	Positive P.S.I.G. @ 176 °F	Negative Vacuum In/Hg
1-1/4"	-020	6	-22 to 230	5.50 / 6.38	0.75	0.50	0.55	15°	225	26
1-1/2"	-024	6	-22 to 230	5.50 / 6.38	0.75	0.50	0.55	15°	225	26
2"	-032	6	-22 to 230	5.50 / 6.38	0.75	0.50	0.55	15°	225	26
2-1/2"	-040	6	-22 to 230	5.50 / 6.38	0.75	0.50	0.55	15°	225	26
3"	-048	6	-22 to 230	5.50 / 6.38	0.75	0.50	0.55	15°	225	26
4"	-064	6	-22 to 230	5.25 / 6.50	0.75	0.50	0.55	15°	225	26
5"	-080	6	-22 to 230	5.25 / 6.50	0.75	0.50	0.55	15°	225	26
6"	-096	6	-22 to 230	5.25 / 6.50	0.75	0.50	0.55	15°	225	26
8"	-128	6	-22 to 230	5.25 / 6.50	1.00	0.50	0.88	15°	225	26
10"	-160	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	225	26
12"	-192	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	225	26
14"	-224	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	150	26
16"	-256	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	150	26
18"	-288	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	150	26
20"	-320	8	-22 to 230	7.00 / 8.63	1.00	0.63	0.88	15°	150	26

OPERATION CONDITIONS

1-1/4" to 12" Burst Pressure: 900 psi, Working Pressure: 225 psi

14" to 20" Burst Pressure: 600 psi, Working Pressure: 150 psi

STYLE CRJ-20 DOUBLE-SPHERE CONNECTORS

STRUCTURE

Item No	Part	Material
1	Body	CR, EPDM, IIR, NBR, CSM, VITON
2	Reinforcement	Nylon Cord Fabric
3	Wire	Hard Steel Wire
4	Floating Flange	Mild Steel Zinc Plated RST 37-2
5	Ring	Malleable Iron

Flanges drillings: Available ANSI B 16.5, DIN 2501, JIS B 2210, BS 4504, AS 2129, ISO 7005, etc. and other standard drillings to your specifications.

FEATURES

1. Four way greater movements provide high level of installation flexibility.
2. Precision molded of synthetic rubber reinforced with nylon cord.
3. Excellent ability to absorb vibration and sound, withstands high pressures.
4. Withstands chemical corrosion, and resists acid and ozone attack.
5. Easy to install, uses floating flanges.

APPLICATION

Colour Code	Tube in Material	Cover out Material	Application
Blue	Neoprene	Neoprene	Excellent Aging resistance, for alkaline and acid salt solutions and aldehydes.
Red	EPDM	EPDM	Higher temp. good ozone resistance, resilience, bend easier lower temp, but not suitable for oils.
Black	Butyl	Butyl	Lower impermeable; resistant to ozone, weather, abrasion, chemicals.
Yellow	Nitrile	Neoprene	Recommended for oils, greases, petroleum, fats, glycos, alcohols, ethers and gas.
White	Nitrile	Nitrile	For drinking water or food grade white color quality up to 150 psi/10bar at 158°F/70°C.
Green	Hypalon	Hypalon	Ozone resistance sunlight stable, for strong acids, alkalis and chemicals.

SPECIFICATION

Nominal Dia.	Dash Size	Face to Face	Temp. °F	Travel Inches	Allowable Movement (In.)				Pressure	
					Axial Compression	Axial Extension	Lateral Deflection	Angular Deflection	Positive PS.I.G. @ 176 °F	Negative Vacuum In/Hg
Inch	-XXX	Inch	Min-Max	Total Compressed/Extended						
1-1/4"	-020	7	-22 to 230	4.92 / 8.07	2.09	1.06	1.75	40°	225	26
1-1/2"	-024	7	-22 to 230	4.92 / 8.07	2.09	1.06	1.75	40°	225	26
2"	-032	7	-22 to 230	4.92 / 8.07	2.09	1.06	1.75	40°	225	26
2-1/2"	-040	7	-22 to 230	4.92 / 8.07	2.09	1.06	1.75	40°	225	26
3"	-048	7	-22 to 230	4.92 / 8.07	2.09	1.06	1.75	40°	225	26
4"	-064	9	-22 to 230	6.89 / 10.25	2.09	1.22	1.57	35°	225	26
5"	-080	9	-22 to 230	6.89 / 10.25	2.09	1.22	1.57	35°	225	26
6"	-096	9	-22 to 230	6.89 / 10.25	2.09	1.22	1.57	35°	225	26
8"	-128	13	-22 to 230	10.43 / 14.17	2.56	1.18	1.38	30°	225	26
10"	-160	13	-22 to 230	10.43 / 14.17	2.56	1.18	1.38	30°	225	26
12"	-192	13	-22 to 230	10.43 / 14.17	1.50	1.18	1.38	30°	225	26
14"	-224	14	-22 to 230	10.43 / 14.17	1.50	1.10	1.10	20°	150	26
16"	-256	14	-22 to 230	10.43 / 14.17	1.50	1.10	1.10	20°	150	26
18"	-288	14	-22 to 230	10.43 / 14.17	1.50	1.10	1.10	20°	150	26
20"	-320	14	-22 to 230	10.43 / 14.17	1.50	1.10	1.10	20°	150	26

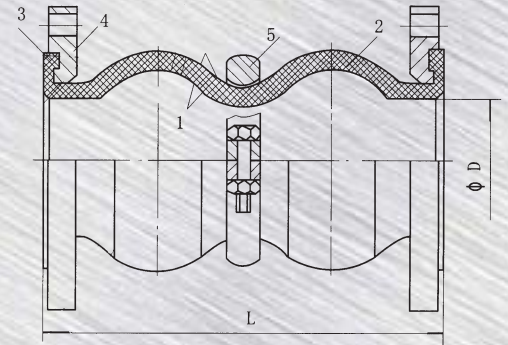
OPERATION CONDITIONS

1-1/4" to 12" Burst Pressure: 900 psi, Working Pressure: 225 psi

14" to 20" Burst Pressure: 600 psi, Working Pressure: 150 psi



Style CRJ-20



STYLE CRJ-30 DOUBLE-SPHERE & STYLE CRJ-31 SINGLE-SPHERE CONNECTORS

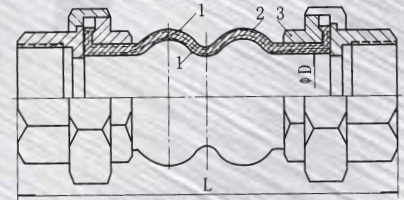
STRUCTURE

Item No	Part	Material
1	Body	CR, EPDM, IIR, NBR, CSM, VITON
2	Reinforcement	Nylon Cord Fabric
3	Union	Malleable Iron

Standard item employs BSPP, BSPT or NPT threads. Optional extra control cables and mild steel ring between the two spheres.



Style CRJ-30

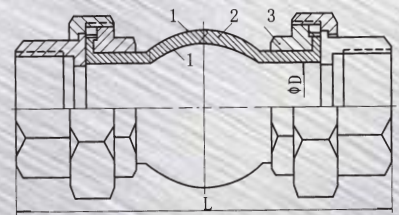


FEATURES

1. Four way greater movements provide high level of installation flexibility.
2. Precision molded of synthetic rubber reinforced with nylon cord.
3. Excellent ability to absorb vibration and sound, withstands high pressures.
4. Withstands chemical corrosion, and resists acid and ozone attack.
5. Easy to install, uses floating flanges.



Style CRJ-31



SPECIFICATION

CRJ-30 Double Sphere Connectors

Nominal Dia.	Dash Size	Installed Length		Travel Inches	Allowable Movement (In.)				Pressure	
		Neutral Length (In.)	Min-Max Installed (In.)		Axial Compression	Axial Extension	Lateral Deflection	Angular Deflection	Positive P.S.I.G. @ 176 °F	Negative Vacuum In/Hg
1/2"	-008	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	32°	150	26
3/4"	-012	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	32°	150	26
1"	-016	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	25°	150	26
1-1/4"	-020	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	25°	150	26
1-1/2"	-024	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	20°	150	26
2"	-032	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	15°	150	26
2-1/2"	-040	9.50	8.82 to 9.63	8.58 / 9.69	0.88	0.25	0.88	12°	150	26
3"	-048	9.50	8.82 to 9.63	8.58 / 9.69	0.88	0.25	0.88	10°	150	26

SPECIFICATION

CRJ-31 Single Sphere Connectors

Nominal Dia.	Dash Size	Installed Length		Travel Inches	Allowable Movement (In.)				Pressure	
		Neutral Length (In.)	Min-Max Installed (In.)		Axial Compression	Axial Extension	Lateral Deflection	Angular Deflection	Positive P.S.I.G. @ 176 °F	Negative Vacuum In/Hg
1/2"	-008	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	32°	150	26
3/4"	-012	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	32°	150	26
1"	-016	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	25°	150	26
1-1/4"	-020	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	25°	150	26
1-1/2"	-024	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	20°	150	26
2"	-032	8	7.32 to 8.13	7.13 / 8.25	0.88	0.25	0.88	15°	150	26

OPERATION CONDITIONS

1/2" to 2" Burst Pressure: 600 psi, Working Pressure: 150 psi
 2-1/2" to 3" Burst Pressure: 450 psi, Working Pressure: 150 psi

STYLE CRJ-60 WIDE-ARCH CONNECTORS

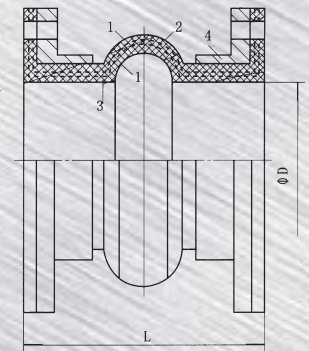
STRUCTURE

Item No	Part	Material
1	Body	Butyl, EPDM, CR, NBR, CSM
2	Reinforcement	Nylon Tire Cord
3	Wire	Hard Steel Wire
4	Split Retaining Rings	Cast Ductile Iron Flanges



Style CRJ-60

Colour Code	Tube in Material	Cover out Material
Black	Butyl	Butyl
Red	EPDM	EPDM
Yellow	Nitrile	Neoprene
Blue	Neoprene	Neoprene
Green	Hypalon	Hypalon



The Style CRJ-60 wide arch expansion joint is interchangeable with and replaces handmade spool types. There is no metal reinforcing imbedded in the carcass. And pressure is contained by using an integral sleeve on the back-up flange. The arch is much wider than that of a conventional joint, which provides greater movement. It is also available with a filled arch that reduces movement by 50%. Flat face flanges integral with the body mate to 125/150# flanges.

SPECIFICATION

Nominal Dia.	Dash Size	Neutral Length	Positive Pressure	Negative Vacuum	Max. Temp.	Movement Capability (In.)			
						Axial Compression	Axial Elongation	Lateral Deflection	Angular Deflection
Inch	-XXX	Inch	PS.I.G.	In/Hg	°F				
2"	-032	6"	225	15	250	1.75	0.75	0.75	35°
2-1/2"	-040	6"	225	15	250	1.75	0.75	0.75	30°
3"	-048	6"	225	15	250	1.75	0.75	0.75	30°
4"	-064	6"	225	15	250	1.75	0.75	0.75	25°
5"	-080	6"	225	15	250	1.75	0.75	0.75	25°
6"	-096	6"	225	15	250	1.75	0.75	1.00	20°
8"	-128	6"	225	15	250	1.75	0.75	1.00	20°
10"	-160	8"	225	15	250	1.75	0.75	1.00	15°
12"	-192	8"	225	15	250	1.75	0.75	1.00	15°
14"	-224	8"	150	10	250	2.00	0.88	1.13	15°
16"	-256	8"	150	10	250	2.00	0.88	1.13	12°
18"	-288	8"	150	10	250	2.00	0.88	1.13	9°
20"	-320	8"	150	10	250	2.00	0.88	1.13	9°
24"	-384	10"	85	10	250	2.25	1.00	1.13	9°

OPERATION CONDITIONS

2" to 12" Burst Pressure: 900 psi, Working Pressure: 225 psi

14" to 20" Burst Pressure: 600 psi, Working Pressure: 150 psi

24" Burst Pressure: 340 psi, Working Pressure: 85 psi

CONNECTALL FLEXIBLE RUBBER JOINTS

HOW TO ORDER

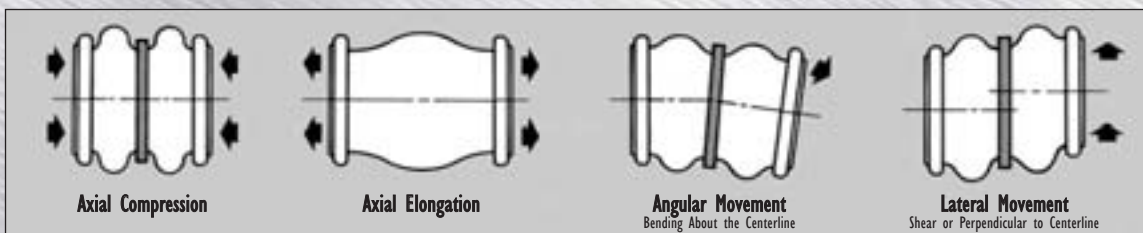


Style	
10	Single sphere connector - 150# flanged
20	Double sphere connector - 150# flanged
30	Double sphere connector - NPT union
31	Single sphere connector - NPT union
60	Single sphere wide arch connector - 150# flanged

Material	
E	EPDM
NBR	Nitrile
IIR	Butyl
CR	Neoprene
CSM	Hypalon

Diameter		
1/2" - 008	2-1/2" -040	10" -160
3/4" - 012	3" -048	12" -192
1" - 016	4" -064	14" -224
1-1/4" - 020	5" -080	16" -256
1-1/2" - 024	6" -096	18" -288
2" - 032	8" -128	20" -320

EG. 2" Double Sphere EPDM Flanged Connector = **CRJ-20-E-032**



IMPORTANT: Control unit assemblies are always recommended for **SPRING-MOUNTED** equipment and **UNANCHORED SYSTEMS**. Control units must be used when the maximum pressure is higher than the ratings shown in the table below.

Control Units / Unanchored		
Control units must be installed when pressures (test, design, surge, operating) exceed ratings below		
PIPE SIZE	CRJ-10	CRJ-20
1" through 4"	180	135
5" through 10"	135	135
12" through 14"	90	90
16" through 24"	45	45

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