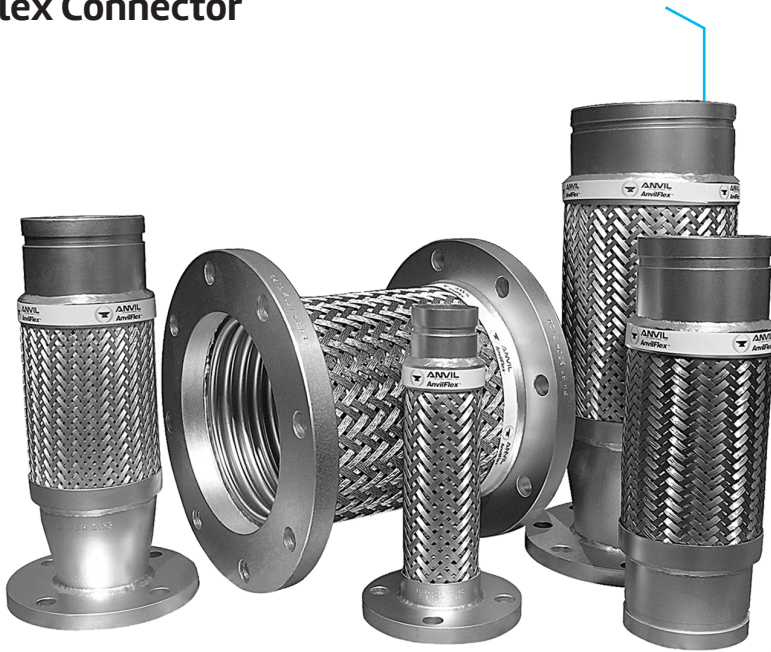


AnvilFlex® Flex Connectors Fig. AF-21-GG – Grooved Ends Flex Connector



Material Specifications

Hose

300 Series Stainless Steel

Braid

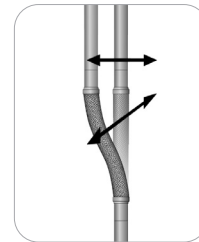
Stainless Steel Type 304

Ends

Schedule 40 Carbon Steel Grooved-Ends

Motion Classifications

AnvilFlex flex connectors are braided pump connectors capable of handling the following movements:



Parallel



Vibration

AnvilFlex Flexible connectors are used to prevent damage to pumps caused by piping stress. AnvilFlex connectors also absorb vibration and noise found in pump installations. AnvilFlex connectors are easily installed and reduce the possibility of pump failure.

They are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

See last page for installation instructions.

Working pressure of standard hose and braid up to 1,325 psi (91 bar or full vacuum and operating temperatures of -400°F (-240° C to + 1,500°F 816° C.)

AnvilFlex connectors are manufactured with 321 stainless steel annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion resistant alloys are available. Contact your ASC Engineered Solutions representative for additional information.

Parallel Offset Motion

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

Motion Frequency

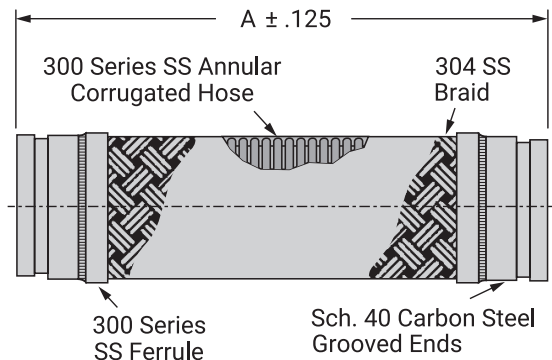
Permanent Offset - The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

NOTE: AnvilFlex flex connectors are manufactured with a 4:1 safety factor.

AnvilFlex® Flex Connectors

Fig. AF-21-GG – Grooved Ends Flex Connector



AF-21-GG GRXGR Flex Connectors

Nominal Size	O.D.	Model or 10 dig. #	A	Pressure 70°F	Parallel Offset		Approx. Wt. Ea.
					Permanent	Intermittent	
In./DN(mm)	In./mm		In./mm	PSI/bar	In./mm	In./mm	Lbs./kN
2 50	2.375 60.3	AF0390232007	12 304.8	450 31.0	1¼ 31.8	¾ 9.5	2.5 1.1
2½ 65	2.875 73.0	AF0390232106	12 304.8	300 20.7	1¼ 31.8	¾ 9.5	3.5 1.6
3 80	3.500 88.9	AF0390232031	12 304.8	275 19.0	¾ 19.1	¼ 6.4	4.5 2.0
4 100	4.500 114.3	AF0390232114	14 355.6	270 18.6	½ 12.7	¼ 6.4	8.0 3.6
5 125	5.563 141.3	AF0390232122	16 406.4	225 15.5	⅞ 22.2	¾ 9.5	12.0 5.4
6 150	6.625 168.3	AF0390232130	16 406.4	165 11.4	⅝ 15.9	¼ 6.4	14.0 6.4
8 200	8.625 219.1	AF0390232148	16 406.4	155 10.7	½ 12.7	¼ 6.4	20.0 9.1
10 250	10.750 273.1	AF0390232155	20 508.0	150 10.3	⅝ 15.9	¼ 6.4	38.0 17.2
12 300	12.750 323.9	AF0390232163	20 508.0	145 10.0	½ 12.7	¼ 6.4	46.0 20.9

AnvilFlex® Flex Connectors Fig. AF-21-GF – Grooved x Class 150 Flanged Flex Connector



Material Specifications

Hose

300 Series Stainless Steel

Braid

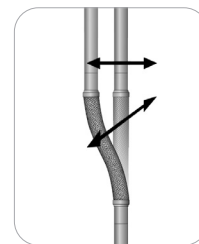
Stainless Steel Type 304

Ends

Schedule 40 Carbon Steel Grooved-end x
Class 150 Flanged End

Motion Classifications

AnvilFlex flex connectors are braided pump connectors capable of handling the following movements:



Parallel



Vibration

AnvilFlex Flexible connectors are used to prevent damage to pumps caused by piping stress. AnvilFlex connectors also absorb vibration and noise found in pump installations. AnvilFlex connectors are easily installed and reduce the possibility of pump failure.

They are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

See last page for installation instructions.

Working pressure of standard hose and braid up to 1,325 psi (91 bar or full vacuum and operating temperatures of -400°F (-240°C to +1,500°F (816° C).

AnvilFlex connectors are manufactured with 321 stainless steel annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion resistant alloys are available. Contact your ASC Engineered Solutions representative for additional information.

Parallel Offset Motion

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

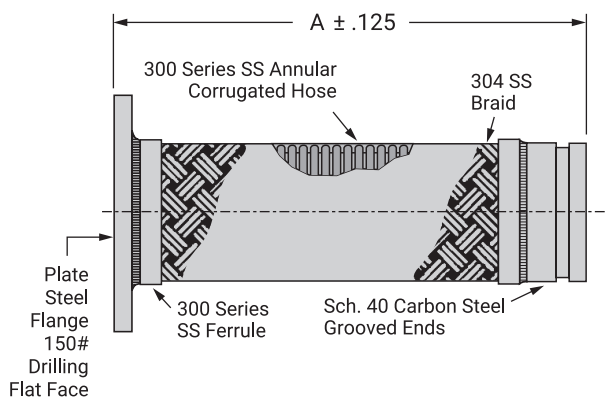
Motion Frequency

Permanent Offset - The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

NOTE: AnvilFlex flex connectors are manufactured with a 4:1 safety factor.

AnvilFlex® Flex Connectors Fig. AF-21-GF – Grooved x Class 150 Flanged Flex Connector



AF-21-GF GRXFL Flex Connectors

Nominal Size	O.D.	Model or 10 dig. #	A	Pressure 70°F	Parallel Offset		Approx. Wt. Ea.
					Permanent	Intermittent	
In./DN(mm)	In./mm		In./mm	PSI/bar	In./mm	In./mm	Lbs./kN
2 50	2.375 60.3	AF0390232197	12 304.8	450 31.0	1 7/8 47.6	5/8 15.9	7.2 3.3
2 1/2 65	2.875 73.0	AF0390232213	12 304.8	300 20.7	1 5/8 41.3	5/8 15.9	8.5 3.9
3 80	3.500 88.9	AF0390232171	12 304.8	275 19.0	1 1/8 28.6	1/2 12.7	10.4 4.7
4 100	4.500 114.3	AF0390232189	12 304.8	270 18.6	5/8 15.9	1/4 6.4	14.0 6.4
5 125	5.563 141.3	AF0390232247	14 355.6	225 15.5	7/8 22.2	3/8 9.5	18.4 8.3
6 150	6.625 168.3	AF0390232254	14 355.6	165 11.4	3/4 19.1	3/8 9.5	23.7 10.8
8 200	8.625 219.1	AF0390232262	15 381.0	155 10.7	5/8 15.9	1/4 6.4	39.6 18.0
10 250	10.750 273.1	AF0390232270	16 406.4	150 10.3	5/8 15.9	1/4 6.4	40 18.1
12 300	12.750 323.9	AF0390232288	17 431.8	145 10.0	1/2 12.7	1/4 6.4	50 22.7

AnvilFlex® Flex Connectors Fig. AF-21-FF – Class 150 Flanged X Class 150 Flanged Flex Connector



Material Specifications

Hose

300 Series Stainless Steel

Braid

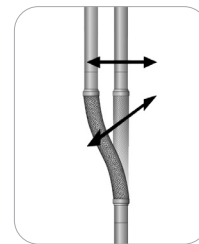
Stainless Steel Type 304

Ends

Class 150 Flanged Ends

Motion Classifications

AnvilFlex flex connectors are braided pump connectors capable of handling the following movements:



Parallel



Vibration

AnvilFlex Flexible connectors are used to prevent damage to pumps caused by piping stress. AnvilFlex connectors also absorb vibration and noise found in pump installations. AnvilFlex connectors are easily installed and reduce the possibility of pump failure.

They are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

See last page for installation instructions.

Working pressure of standard hose and braid up to 1,325 psi (91 bar) or full vacuum and operating temperatures of -400°F (-240° C) to +1,500°F 816° C).

AnvilFlex connectors are manufactured with 321 stainless steel annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion resistant alloys are available. Contact your ASC Engineered Solutions representative for additional information.

Parallel Offset Motion

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

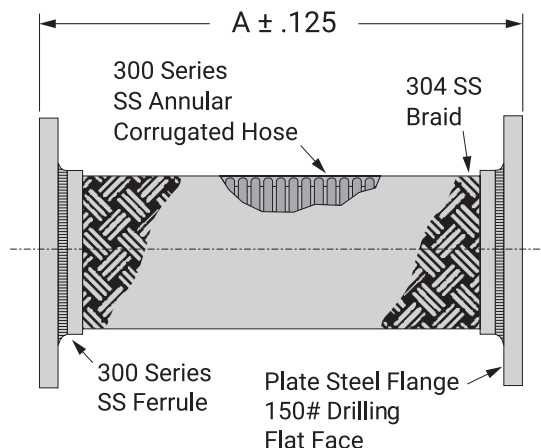
Motion Frequency

Permanent Offset – The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

NOTE: AnvilFlex flex connectors are manufactured with a 4:1 safety factor.

AnvilFlex® Flex Connectors Fig. AF-21-FF – Class 150 Flanged X Class 150 Flanged Flex Connector



AF-21-FF FLXFL Flex Connectors

Nominal Size In./DN(mm)	O.D. In./mm	Model or 10 dig. #	A In./mm	Pressure 70°F PSI/bar	Parallel Offset		Approx. Wt. Ea. Lbs./kN
					Permanent In./mm	Intermittent In./mm	
2 50	2.375 60.3	AF0390232387	9 228.6	450 31.0	1 1/8 28.6	3/8 9.5	10.0 4.5
2 1/2 65	2.875 73	AF0390232395	9 228.6	300 20.7	1 25.4	3/8 9.5	12.0 5.4
3 80	3.500 88.9	AF0390232403	9 228.6	275 19.0	5/8 15.9	1/4 6.4	14.0 6.4
4 100	4.500 114.3	AF0390232429	9 228.6	270 18.6	1/2 12.7	1/4 6.4	19.0 8.6
5 125	5.563 141.3	AF0390232437	11 279.4	225 15.5	3/4 19.1	3/8 9.5	25.0 11.3
6 150	6.625 168.3	AF0390232445	11 279.4	165 11.4	5/8 15.9	1/4 6.4	30.0 13.6
8 200	8.625 219.1	AF0390232452	12 304.8	155 10.7	1/2 12.7	1/4 6.4	54.0 24.5
10 250	10.750 273.1	AF0390232460	13 330.2	150 10.3	1/2 12.7	1/4 6.4	75.0 34.0
12 300	12.750 323.9	AF0390232478	14 355.6	145 10.0	1/2 12.7	1/4 6.4	105.0 47.6

AnvilFlex® Flex Connectors Fig. AF-21-RFF – Class 150 Flanged x Class 150 Flanged Reducing Flex Connector



Material Specifications

Hose

300 Series Stainless Steel

Braid

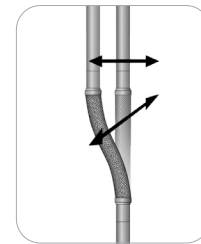
Stainless Steel Type 304

Ends

Class 150 Flanged End x Class 150
Reducing Flanged End

Motion Classifications

AnvilFlex flex connectors are braided pump connectors capable of handling the following movements:



Parallel



Vibration

AnvilFlex Flexible connectors are used to prevent damage to pumps caused by piping stress. AnvilFlex connectors also absorb vibration and noise found in pump installations. AnvilFlex connectors are easily installed and reduce the possibility of pump failure.

They are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

See last page for installation instructions.

Working pressure of standard hose and braid up to 1,325 psi (91 bar) or full vacuum and operating temperatures of -400°F (-240° C) to +1,500°F 816° C).

AnvilFlex connectors are manufactured with 321 stainless steel annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion resistant alloys are available. Contact your ASC Engineered Solutions representative for additional information.

Parallel Offset Motion

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

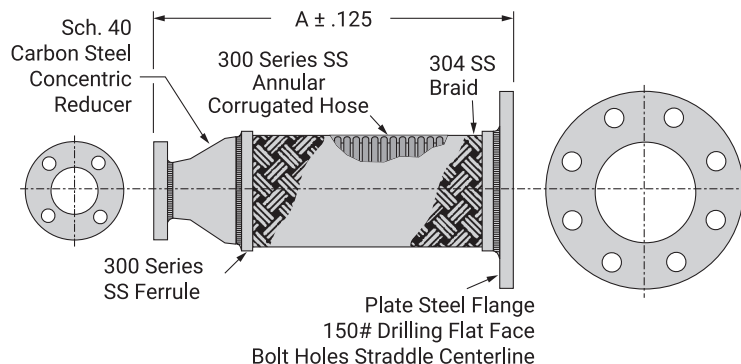
Motion Frequency

Permanent Offset - The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

NOTE: AnvilFlex flex connectors are manufactured with a 4:1 safety factor.

AnvilFlex® Flex Connectors Fig. AF-21-RFF – Class 150 Flanged x Class 150 Flanged Reducing Flex Connector



Nominal Size		Small O.D.	Large O.D.	Length	Pressure 70°F	Parallel Offset		Approx. Wt. Ea.
Small Flange	Large Flange					Permanent	Intermittent	
In./DN(mm)	In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	Lbs./kN
1½ 40	2	1.66	2.375	14	450	1½	⅝	6.7
	50	42.2	60.3	355.6	31.0	38.1	15.9	3.0
	2½	1.66	2.875	14	300	1¼	⅜	6.9
2 50	65	42.2	73.0	355.6	20.7	31.8	9.5	3.1
	2½	2.375	2.875	14	300	1¼	⅜	8.1
	65	60.3	73.0	355.6	20.7	31.8	9.5	3.7
2½ 65	3	2.375	3.5	14	275	¾	⅜	10.1
	80	60.3	88.9	355.6	19	19.1	9.5	4.6
	4	2.375	4.5	15	270	½	¼	12
3 80	100	60.3	114.3	381.0	18.6	12.7	6.4	5.4
	3	2.875	3.5	14	275	¾	⅜	11.2
	80	73.0	88.9	355.6	19.0	19.1	9.5	5.1
3½ 90	4	2.875	4.5	15	270	½	¼	14.7
	100	73.0	114.3	381.0	18.6	12.7	6.4	6.7
	5	2.875	5.563	18	225	¾	⅜	18.9
4 100	125	73.0	141.3	457.2	15.5	19.1	9.5	8.6
	6	2.875	6.625	19	165	¾	⅜	25.3
	150	73.0	168.3	482.6	11.4	19.1	9.5	11.5
4½ 110	4	3.5	4.5	15	270	½	¼	15.5
	100	88.9	114.3	381.0	18.6	12.7	6.4	7.0
	5	3.5	5.563	18	225	¾	⅜	19.7
5 125	125	88.9	141.3	457.2	15.5	19.1	9.5	8.9
	6	3.5	6.625	19	165	¾	⅜	26.1
	150	88.9	168.3	482.6	11.4	19.1	9.5	11.8
5½ 140	5	4.5	5.563	18	225	¾	⅜	21.6
	125	114.3	141.3	457.2	15.5	19.1	9.5	9.8
	6	4.5	6.625	19	165	¾	⅜	28
6 150	150	114.3	168.3	482.6	11.4	19.1	9.5	12.7
	8	4.5	8.625	20	155	⅝	¼	38.4
	200	114.3	219.1	508.0	10.7	15.9	6.4	17.4
6½ 160	6	5.563	6.625	19	165	¾	⅜	31
	150	141.3	168.3	482.6	11.4	19.1	9.5	14.1
	8	5.563	8.625	20	155	⅝	¼	40.7
7 175	200	141.3	219.1	508.0	10.7	15.9	6.4	18.5
	8	6.625	8.625	20	155	½	¼	41.7
	200	168.3	219.1	508.0	10.7	12.7	6.4	18.9
8 200	10	6.625	10.75	20	150	½	¼	83.1
	250	168.3	273.1	508.0	10.3	12.7	6.4	37.7
	10	8.625	10.75	20	150	½	¼	95
10 250	250	219.1	273.1	508.0	10.3	12.7	6.4	43.1
	12	10.75	12.75	22	145	½	¼	125.9
	300	273.1	323.9	558.8	10.0	12.7	6.4	571

For Temp Above 70°F (21.6° C)

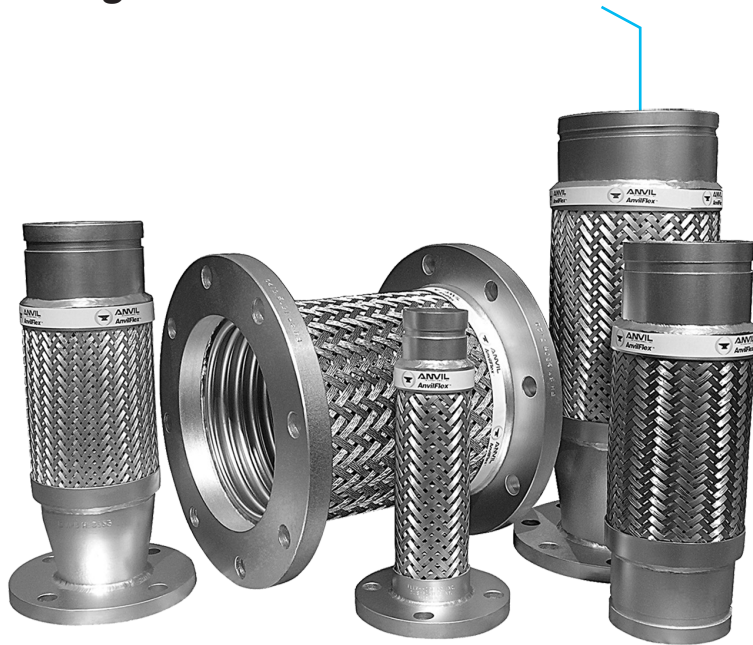
Temperature	Small O.D.
°F / °C	
70 21.1	1.00
200 93.3	0.94
300 148.8	0.88
400 204.4	0.83
500 260.0	0.78
600 315.6	0.74

For safe working pressure above 70°F (21.1° C), Multiply pressure shown at 70°F. times correction factor of require temperature.

*See Motion Classification on previous page for additional information.

Working pressures shown for the hose and braid are based on an operating temperature of 70° F (21° C) with a 4:1 safety factor.

AnvilFlex® Flex Connectors Fig. AF-21-RGF – Groove x Class 150 Flanged Reducing Flex Connector



AnvilFlex Flexible connectors are used to prevent damage to pumps caused by piping stress. AnvilFlex connectors also absorb vibration and noise found in pump installations. AnvilFlex connectors are easily installed and reduce the possibility of pump failure.

They are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

See last page for installation instructions.

Working pressure of standard hose and braid up to 1,325 psi (91 bar) or full vacuum and operating temperatures of -400°F (-240° C) to +1,500°F 816° C).

AnvilFlex connectors are manufactured with 321 stainless steel annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion resistant alloys are available. Contact your ASC Engineered Solutions representative for additional information.

Material Specifications

Hose

300 Series Stainless Steel

Braid

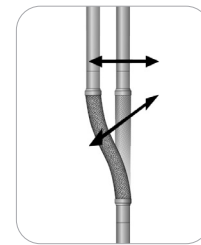
Stainless Steel Type 304

Ends

Schedule 40 Carbon Steel Grooved-End x Class 150 Reducing Flanged End

Motion Classifications

AnvilFlex flex connectors are braided pump connectors capable of handling the following movements:



Parallel



Vibration

Parallel Offset Motion

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

Motion Frequency

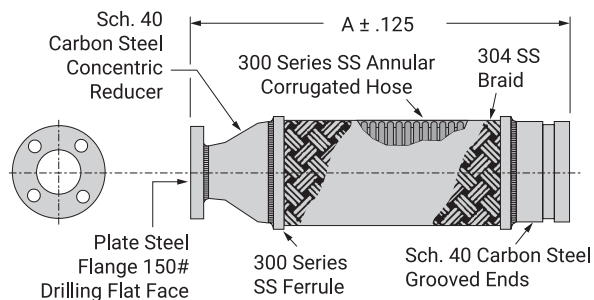
Permanent Offset – The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

NOTE: AnvilFlex flex connectors are manufactured with a 4:1 safety factor.

AnvilFlex® Flex Connectors

Fig. AF-21-RGF – Groove x Class 150 Flanged Reducing Flex Connector



Nominal Size		Small O.D.	Large O.D.	Length	Pressure 70°F	Parallel Offset		Approx. Wt. Ea.
Small Flange	Large Groove & Hose					Permanent	Intermittent	
In./DN(mm)	In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	Lbs./kN
1½ 40	2	1.660	2.375	14	450	1½	⅝	6.7
	50	42.2	60.3	355.6	31.0	38.1	15.9	3.0
2 50	2½	1.660	2.875	14	300	1¼	⅜	6.9
	65	42.2	73.0	355.6	20.7	31.8	9.5	3.1
2½ 65	2½	2.375	2.875	14	300	1¼	⅜	8.1
	65	60.3	73.0	355.6	20.7	31.8	9.5	3.7
3 80	3	2.375	3.500	14	275	¾	⅜	10.1
	80	60.3	88.9	355.6	19.0	19.1	9.5	4.6
4 100	4	2.375	4.5	14	270	½	¼	12.0
	100	60.3	114.3	355.6	18.6	12.7	6.4	5.4
4½ 115	3	2.875	3.5	14	275	¾	⅜	11.2
	80	73.0	88.9	355.6	19.0	19.1	9.5	5.1
5 125	4	2.875	4.500	14	270	½	¼	14.7
	100	73.0	114.3	355.6	18.6	12.7	6.4	6.7
6 150	5	2.875	5.563	18	225	¾	⅜	18.9
	125	73.0	141.3	457.2	15.5	19.1	9.5	8.6
6½ 165	6	2.875	6.625	19	165	¾	⅜	25.3
	150	73	168.3	482.6	11.4	19.1	9.5	11.5
7 180	4	3.500	4.500	15	270	½	¼	15.5
	100	88.9	114.3	381.0	18.6	12.7	6.4	7.0
8 200	5	3.500	5.563	18	225	¾	⅜	19.7
	125	88.9	141.3	457.2	15.5	19.1	9.5	8.9
9 225	6	3.500	6.625	19	165	¾	⅜	26.1
	150	88.9	168.3	482.6	11.4	19.1	9.5	11.8
10 250	5	4.500	5.563	18	225	¾	⅜	21.6
	125	114.3	141.3	457.2	15.5	19.1	9.5	9.8
12 300	6	4.500	6.625	19	165	¾	⅜	28.0
	150	114.3	168.3	482.6	11.4	19.1	9.5	12.7
14 350	8	4.500	8.625	20	155	⅝	¼	38.4
	200	114.3	219.1	508.0	10.7	15.9	6.4	17.4
16 400	6	5.563	6.625	19	165	¾	⅜	31.0
	150	141.3	168.3	482.6	11.4	19.1	9.5	14.1
18 450	8	5.563	8.625	20	155	⅝	¼	40.7
	200	141.3	219.1	508.0	10.7	15.9	6.4	18.5
20 500	8	6.625	8.625	20	155	½	¼	41.7
	150	168.3	219.1	508.0	10.7	12.7	6.4	18.9
22 550	10	8.625	10.750	23	150	½	¼	84.0
	200	219.1	273.1	584.2	10.3	12.7	6.4	38.1
24 600	12	10.75	12.750	25	145	½	¼	102
	250	273.1	323.9	635.0	10.0	12.7	6.4	46.3

For Temp Above 70°F (21.6° C)

Temperature	Factor S.S.
°F / °C	
70 21.1	1.00
200 93.3	0.94
300 148.8	0.88
400 204.4	0.83
500 260.0	0.78
600 315.6	0.74

For safe working pressure above 70°F (21.1° C), Multiply pressure shown at 70°F. times correction factor of required temperature.

*See Motion Classification on previous page for additional information.

Working pressures shown for the hose and braid are based on an operating temperature of 70° F (21° C) with a 4:1 safety factor.