

NITROGEN GAS SPRINGS

Stock sizes in nitrogen gas springs with multiple or fixed end fittings

Now you can purchase your gas springs from the same reliable source that supplies your stock mechanical springs – SPEC®. Our stock gas springs use the latest sealing technology for a longer service life.

Our stock selection consists of various pressure, stroke and end fitting lengths. This flexibility allows the use of a stock gas spring in almost any application. Typical functions include counter-balancing, lifting, lowering, extending and retracting.

Construction Features

- Durable rod construction with anti-corrosive surface.
- Exclusive seal construction allows for mounting in various positions.
- Self-contained lubrication for long life and smooth operation.
- Selection of various end fittings for universal applications.

Application Considerations

The preferred mounting orientation is rod down. Location of attachment points will alter the load carrying characteristics of the gas spring. For counter balancing applications, the center of gravity and its respective load or force is essential to proper gas spring selection. In all cases, geometry plays a critical role in the application and life of the gas spring.

Five Series of Gas Springs are Available

G Series Black nitride rod. Heavy-duty seal package. Highest quality for demanding applications.

NI Series Black nitride rod. Steel construction. SPEC's most popular line of Gas Springs.

VL Series The bleeder valve allows for release of pressure, so this series is excellent for prototypes or replacements where force is unknown. The VL series is pressurized to a maximum force. The user can release gas via a bleeder valve to get the desired force for a specific application. When the desired force is obtained the spring can be returned to Associated Spring-Raymond for measurement. From this, a fixed force spring can be selected for future orders.

SX Series Stainless steel construction. The SX series is designed for applications exposed to the environment or where legislation requires stainless steel such as the food and chemical industries.

EL Series Black nitride rod. Steel construction. This series is supplied with a locking tube that automatically locks into position at full extension. This allows the user to work around the object supported by the spring. The spring can be released by simply moving the locking tube.

End Configurations

Our NI, VL, SX and EL series are supplied with standard ball ends. Additional end configurations available upon request.

Mounting Options

- **Blade Ends** are generally mounted over a shoulder bolt or a similar fixed shaft.
- **Clevis Ends** are designed to slide over a bracket.

Align blade and clevis end mountings parallel to each other. Proper alignment throughout the operating range is essential to obtain maximum life cycle.

- **Ball Ends** are specifically designed to allow for a slight misalignment (up to 12 degrees) over the operating range of the spring.

The preferred mounting orientation is rod down.

Part Specification

For our NI, VL, SX and EL series, simply specify the part number in the table. For special ends, add a suffix to the part. The first suffix is for the rod end, second is for the tube end.

Example: NI-2100-100 is part with standard ball ends. To specify a blade end on the rod end and a clevis end on the tube end, specify NI-2100-100-T-3.

For our G series, the suffix as shown on pages 136-137 must be added to the part number.

Example: to order cylinder G0819-100-100 with a -1 blade end on the rod end, and a -3 clevis on the tube end, specify G0819-100-100-1-3

Spring Force

The force listed is for the fully extended spring. The force will increase as the spring is compressed.

The NI, VL, SX and EL series will have fully compressed loads approximately 1.3 times the forces listed, except for the 3100 series. The 3100 series will have fully compressed loads approximately 1.4 times the forces listed.

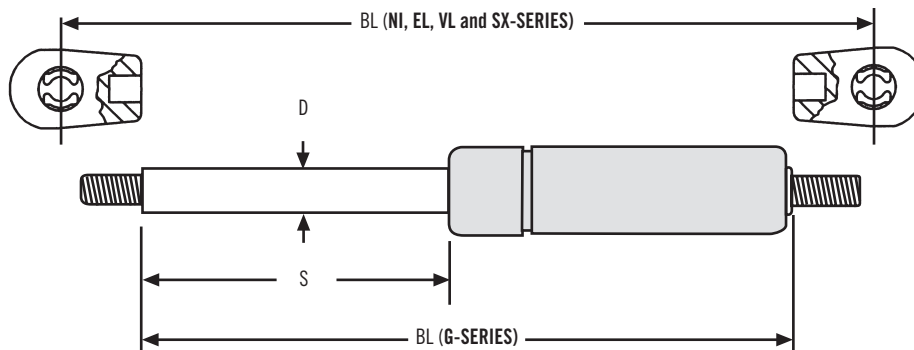
The G0819 series will have fully compressed loads approximately 1.3 times the forces listed. The G1022 series will have fully compressed loads approximately 1.4 times the forces listed.

Forces at intermediate deflections can be computed by proportion.

Example: A G0819-100-100 base spring will have fully compressed load of 1.3 x 22.5lbs (100N), or 29.3lbs (130N). The force at 50% available compression is 1.15 x 22.5lbs (100N), or 25.9lbs (115N).

Dampening

Springs dampen on extension only.



NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
G0819-100-100											22.5	100
G0819-100-150											33.7	150
G0819-100-250	0.315	8.0	0.709	18.0	3.9	100	10.00	250.0	11.3-11.8	287-300	56.2	250
G0819-100-400											89.9	400
G0819-100-525											118.0	525
G0819-150-100											22.5	100
G0819-150-150											33.7	150
G0819-150-250	0.315	8.0	0.709	18.0	5.9	150	14.00	350.0	15.2-15.8	386-400	56.2	250
G0819-150-400											89.9	400
G0819-150-525											118.0	525
G0819-200-100											22.5	100
G0819-200-150											33.7	150
G0819-200-250	0.315	8.0	0.709	18.0	7.9	200	17.7	450.0	19.1-19.7	486-500	56.2	250
G0819-200-400											89.9	400
G0819-200-525											118.0	525
G0819-250-100											22.5	100
G0819-250-150											33.7	150
G0819-250-250	0.315	8.0	0.709	18.0	9.8	250	21.7	550.0	23.1-23.6	586-600	56.2	250
G0819-250-400											89.9	400
G0819-250-525											118.0	525
G1022-300-450											101.2	450
G1022-300-700	0.394	10.0	0.906	23.0	11.8	300	25.60	650.0	27.0-28.2	686-714	157.4	700
G1022-300-900											202.3	900
G1022-400-450											101.2	450
G1022-400-700	0.394	10.0	0.906	23.0	15.7	400	33.5	850.0	34.9-36.0	886-916	157.4	700
G1022-400-900											202.3	900

*Full extension range depends on end configuration.

Add dimension E from End Fitting charts below for each end to determine full extension length for configuration selected.

See Part Specification instructions on page 130 on how to order.

Additional sizes available by calling 1-800-872-7732.



NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
NI-2000-100											100	445
NI-2000-120					3.00	76.0	8.58	218.0	10.00	254.0	120	534
NI-2000-150											150	667
NI-2100-20											20	89
NI-2100-30											30	133
NI-2100-40											40	178
NI-2100-50					3.50	89.0	10.48	266.0	11.90	302.0	50	222
NI-2100-60											60	267
NI-2100-90											90	400
NI-2100-120											120	534
NI-2100-150											150	667
NI-2150-30											30	133
NI-2150-60											60	267
NI-2150-90					5.50	140.0	13.83	351.0	15.25	387.0	90	400
NI-2150-120											120	534
NI-2150-150											150	667
NI-2200-20											20	89
NI-2200-30											30	133
NI-2200-40											40	178
NI-2200-50	0.315	8.0	0.708	18.0	6.00	152.0	15.58	396.0	17.00	432.0	50	222
NI-2200-60											60	267
NI-2200-90											90	400
NI-2200-120											120	534
NI-2200-150											150	667
NI-2250-90											90	400
NI-2250-120					7.25	184.0	17.08	434.0	18.50	470.0	120	534
NI-2250-150											150	667
NI-2300-20											20	89
NI-2300-30											30	133
NI-2300-40											40	178
NI-2300-60											60	267
NI-2300-70											70	311
NI-2300-75											75	334
NI-2300-80					8.00	203	18.58	472	20.00	508	80	356
NI-2300-90											90	400
NI-2300-100											100	445
NI-2300-110											110	489
NI-2300-120											120	534
NI-2300-130											130	578
NI-2300-150											150	667
NI-2900-100					2.00	51.0	6.08	154.0	7.5	191.0	100	445
NI-3100-100 **											100	445
NI-3100-120 **											120	534
NI-3100-150 **	0.394	10.0	0.866	22.0	11.50	292	26.34	669	28.00	711	150	667
NI-3100-175 **											175	778
NI-3100-200 **											200	890
NI-3100-250 **											250	1112
NI-4900-10											10	44
NI-4900-20											20	89
NI-4900-30					2.00	51.0	6.08	154.0	7.50	191.0	30	133
NI-4900-40											40	178
NI-4900-60											60	267
NI-4900-80											80	356
NI-5000-10	0.236	6.0	0.591	15.0							10	44
NI-5000-20											20	89
NI-5000-30					3.00	76.0	8.58	218.0	10.00	254.0	30	133
NI-5000-40											40	178
NI-5000-60											60	267
NI-5000-80											80	356
NI-5100-20					3.50	89.0	10.58	269.0	12.00	305.0	20	89



NI SERIES Black nitride rod. Steel construction. SPEC's most popular line of Gas Springs. **NI SERIES**
NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
NI-5100-30											30	133
NI-5100-40	0.236	6.0	0.591	15.0	3.50	89.0	10.58	269.0	12.00	305.0	40	178
NI-5100-60											60	267
NI-5100-90	0.315	8.0	0.708	18.0	3.50	89.0	10.58	269.0	12.00	305.0	90	400
NI-5150-20											20	89
NI-5150-30											30	133
NI-5150-40					5.50	140.0	13.58	345.0	15.00	381.0	40	178
NI-5150-60											60	267
NI-5150-80											80	356
NI-5200-20	0.236	6.0	0.591	15.0							20	89
NI-5200-30											30	133
NI-5200-40					6.75	171.0	15.58	396.0	17.00	432.0	40	178
NI-5200-50											50	222
NI-5200-60											60	267
NI-5200-75											75	334
NI-5200-90	0.315	8.0	0.708	18.0	6.75	171.0	15.58	396.0	17.00	432.0	90	400
NI-5250-20											20	89
NI-5250-30											30	133
NI-5250-45					7.25	184.0	17.08	434.0	18.50	470.0	45	200
NI-5250-60											60	267
NI-5250-75											75	334
NI-5300-10	0.236	6.0	0.591	15.0							10	44
NI-5300-20											20	89
NI-5300-30					8.00	203.0	18.58	472.0	20.00	508.0	30	133
NI-5300-40											40	178
NI-5300-50											50	222
NI-5300-60											60	267
NI-8652-90	0.315	8.0	0.708	18.0	5.50	140.0	13.58	345.0	15.00	381.0	90	400

All NI series parts come with type A ball ends except NI-3100 series. See End Fitting charts on pages 136-137 for additional available ends as special build.
 * Full extension range depends on end configuration. Add dimension E from End Fitting charts for each end to determine full extension length for configuration selected.
 ** NI-3100 series parts come with type Q ball ends and safety clip C-1008 is included.
 See Part Specification instructions on page 130 on how to order.
 Additional sizes available by calling 1-800-872-7732.



VL SERIES The bleeder valve allows for release of pressure, so this series is excellent for prototypes or replacements where force is unknown. The VL series is pressurized to a maximum force. The user can release gas via a bleeder valve to get the desired force for a specific application. When the desired force is obtained the spring can be returned to Associated Spring-Raymond for measurement. From this, a fixed force spring can be selected for future orders. **VL SERIES**
NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
VL-2100-150					3.50	89	10.48	266	11.90	302		
VL-2150-150					5.50	140	13.83	351	15.25	387		
VL-2200-150	0.315	8.0	0.709	18.0	6.00	152	15.58	396	17.00	432	150	667
VL-2250-150					7.25	184	17.08	434	18.50	470		
VL-2300-150					8.00	203	18.58	472	20.00	508		
VL-3100-250**	0.394	10.0	0.866	22.0	11.50	292	26.58	675	28.00	711	250	1112
VL-4900-100					2.00	51	6.08	154	7.50	191		
VL-5000-100	0.236	6.0	0.591	15.0	3.00	76	8.58	218	10.00	254	100	445
VL-5150-100					5.50	140	13.58	345	15.00	381		

All VL series parts come with type A ball ends except VL-3100-250 series. See End Fitting charts on pages 136-137 for additional available ends as special build.
 * Full extension range depends on end configuration. Add dimension E from End Fitting charts for each end to determine full extension length for configuration selected.
 ** VL-3100-250 comes with a type Q ball end and safety clip C-1008 is included.
 See Part Specification instructions on page 130 on how to order.
 Additional sizes available by calling 1-800-872-7732.



NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
SX-2100-90			0.708		3.50	89.0	10.48	266.0	11.90	302.0	90	400
SX-2150-90			0.709		5.50	140	13.83	351	15.25	387	90	400
SX-2200-90											90	400
SX-2200-120					6.00	152.0	15.58	396.0	17.00	432.0	120	534
SX-2200-150			0.708								150	667
SX-2250-120	0.315	8.0		18.0	7.25	184.0	17.08	434.0	18.50	470.0	120	534
SX-2250-150											150	667
SX-2300-80											80	356
SX-2300-90			0.709		8.00	203	18.58	472	20.00	508	90	400
SX-2300-100											100	445
SX-2300-120											120	534
SX-3100-100 **											100	445
SX-3100-150 **	0.394	10.0	0.866	22.0	11.50	292	26.34	669	28.00	711	150	667
SX-3100-200 **											200	890
SX-3100-250 **											250	1112
SX-4900-10											10	44
SX-4900-20					2.00	51	6.08	154	7.50	191	20	89
SX-4900-40											40	178
SX-5000-20											20	89
SX-5000-30					3.00	76	8.58	218	10.00	254	30	133
SX-5000-40											40	178
SX-5000-60											60	267
SX-5100-20											20	89
SX-5100-30					3.50	89	10.58	269	12.00	305	30	133
SX-5100-40											40	178
SX-5100-60											60	267
SX-5150-20											20	89
SX-5150-30	0.236	6.0	0.591	15.0	5.50	140	13.58	345	15.00	381	30	133
SX-5150-40											40	178
SX-5150-60											60	267
SX-5200-20											20	89
SX-5200-30											30	133
SX-5200-40					6.75	171	15.58	396	17.00	432	40	178
SX-5200-50											50	222
SX-5200-60											60	267
SX-5250-20											20	89
SX-5250-30					7.25	184	17.08	434	18.50	470	30	133
SX-5250-45											45	200
SX-5250-60											60	267
SX-5300-20											20	89
SX-5300-30											30	133
SX-5300-40					8.00	203	18.58	472	20.00	508	40	178
SX-5300-50											50	222
SX-5300-60											60	267

All SX series parts come with type C ball ends except SX-3100 series. See End Fitting charts on pages 136-137 for additional available ends as special build.

* Full extension range depends on end configuration. Add dimension E from End Fitting charts for each end to determine full extension length for configuration selected.

** SX-3100 series parts come with type P ball ends and safety clip C-1008 is included.

See Part Specification instructions on page 130 on how to order.

Additional sizes available by calling 1-800-872-7732.



NITROGEN GAS SPRINGS - MULTIPLE END FITTINGS

Catalog Number	Rod Diameter (D)		Tube O.D.		Stroke (S)		Base Cylinder Length (BL)		Full Extension (L)* Range (Ref.)		Force	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb	N
EL-2100-90											90	400
EL-2100-120					3.50	89.00	10.48	266.0	11.90	302.00	120	534
EL-2100-150											150	667
EL-2150-90											90	400
EL-2150-120					5.50	140.0	13.83	351.0	15.25	387.0	120	534
EL-2150-150											150	667
EL-2200-90	0.315	8.0	0.708	18.0							90	400
EL-2200-120					6.00	152.0	15.58	396.0	17.00	432.0	120	534
EL-2200-150											150	667
EL-2250-120					7.25	184.0	17.08	434.0	18.50	470.0	120	534
EL-2250-150											150	667
EL-2300-90											90	400
EL-2300-120					8.00	203	18.58	472	20.00	508	120	534
EL-2300-150											150	667
EL-3100-100 **											100	445
EL-3100-120 **											120	534
EL-3100-150 **	0.394	10.0	0.866	22.0	11.50	292	26.34	669	28.00	711	150	667
EL-3100-200 **											200	890
EL-3100-250 **											250	1112
EL-4900-20											20	89
EL-4900-30											30	133
EL-4900-40					2.00	51.0	6.08	154.0	7.50	191.0	40	178
EL-4900-60											60	267
EL-4900-80											80	356
EL-5000-20											20	89
EL-5000-30											30	133
EL-5000-40					3.00	76.0	8.58	218.0	10.00	254.0	40	178
EL-5000-60											60	267
EL-5000-80											80	356
EL-5100-20											20	89
EL-5100-30					3.50	89.0	10.58	269.0	12.00	305.0	30	133
EL-5100-40											40	178
EL-5100-60											60	267
EL-5150-20											20	89
EL-5150-30											30	133
EL-5150-40	0.236	6.0	0.591	15.0	5.50	140.0	13.58	345.0	15.00	381.0	40	178
EL-5150-60											60	267
EL-5150-80											80	356
EL-5200-20											20	89
EL-5200-30											30	133
EL-5200-40					6.75	171.0	15.58	396.0	17.00	432.0	40	178
EL-5200-50											50	222
EL-5200-60											60	267
EL-5200-75											75	334
EL-5250-20											20	89
EL-5250-30											30	133
EL-5250-45					7.25	184.0	17.08	434.0	18.50	470.0	45	200
EL-5250-60											60	267
EL-5250-75											75	334
EL-5300-20											20	89
EL-5300-30											30	133
EL-5300-40											40	178
EL-5300-50					8.00	203.0	18.58	472.0	20.00	508.0	50	222
EL-5300-60											60	267
EL-5300-70											70	311
EL-5300-80											80	356

All EL series parts come with type C ball ends except EL-3100 series. See End Fitting charts on pages 136-137 for additional available ends as special build. See Part Specification instructions on page 130 on how to order. Additional sizes available by calling 1-800-872-7732.

* Full extension range depends on end configuration. Add dimension E from End Fitting charts for each end to determine full extension length for configuration selected. **EL-3100 series parts come with type Q ball ends and safety clip C-1008 is included.



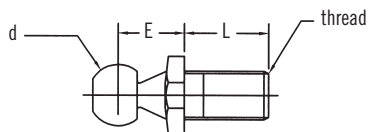
NITROGEN GAS SPRINGS - END OPTIONS - G, NI, VL, SX AND EL SERIES

NI, VL, SX, and EL series are supplied with standard ball ends as indicated in chart below. For special ends, add a suffix to the part. The first suffix is for the rod end, second is for the tube end. Additional ends can be ordered by special request.

Example: NI-2100-100 is part with standard ball ends. To specify a blade end on the rod end and a clevis end on the tube end, specify NI-2100-100-T-3. T is the blade end with a 13mm through hole and 3 is the clevis end.

For our G series, the suffix as shown on pages 136-137 must be added to the part number. *Example: to order cylinder G0819-100-100 with a -1 blade end on the rod end, and a -3 clevis on the tube end, specify G0819-100-100-1-3.*

BALL STUDS

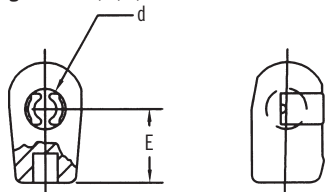


Catalog Number	Thread	d (Ref.)		E		L		Material
		in	mm	in	mm	in	mm	
BALL	5/16 - 18							Steel - Zinc Plated
B-1005-S	5/16 - 18	0.390	10.0	0.660	16.8	0.540	13.7	Stainless Steel
B-1005-BP	5/16 - 18							Steel - Black Powder
B-1002	M8 x 1.25							Steel - Yellow Zinc
B-1007	5/16 - 18							Steel - Zinc Plated
B-1007-S	5/16 - 18	0.512	13.0	0.790	20.0	0.625	15.9	Stainless Steel
B-1007-M	M8 x 1.25							Steel - Zinc Plated

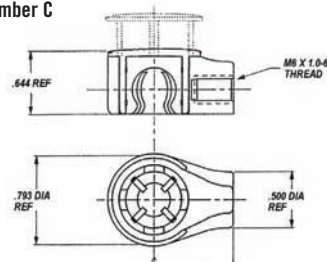
Make sure you order a ball stud for each ball end specified on your spring. Note the the 3100 series uses a 0.512" (13mm) ball stud.

BALL STUDS

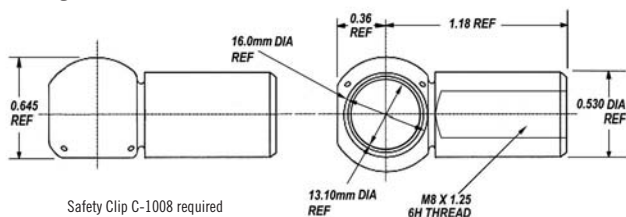
Catalog Number 4, 9, A, and B



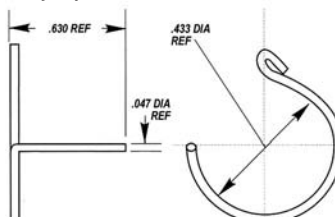
Catalog Number C



Catalog Number O, P, and Q



Safety Clip C-1008

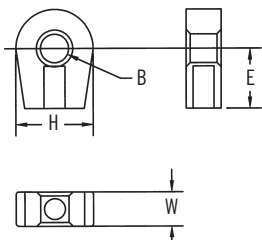


Catalog Number	Ball Size (d)		E		For series number	Material
	in	mm	in	mm		
4					G0819	Composite with Black Retainer
9					G1022	Composite with Black Retainer
A	0.390	10.0	0.709	18.0	NI, VL, except 3100	Black Composite with Nitride Retainer
B					Optional ball end	Grey Composite with Chrome Retainer
C					EL, SX, except 3100	Composite with Snap-On Cap
O*					EL-3100, VL-3100	Steel - Zinc Plate
P*	0.512	13.0	1.180	30.0	SX-3100	Stainless Steel
Q*					NI-3100	Steel - Black Nitrided Finish

* These ends require safety clip C-1008, included.



BLADE ENDS



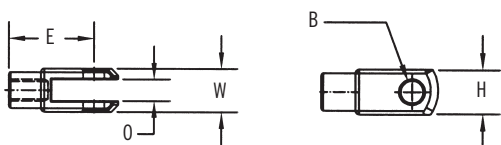
Catalog Number	E		H		B		W (Ref.)		For series number
	in	mm	in	mm	in	mm	in	mm	
1	0.984	25.0	0.787	20.0	0.315	8.0	0.315	8.0	G0819
6					0.394	10.0			G1022 and 3100
R					0.513	13.0			NI, VL, SX and EL
S					0.408	10.4			NI, VL, SX and EL
T	0.709	18.0	0.709	18.0	0.328	8.3	0.472	12.0	NI, VL, SX and EL
U					0.263	6.7			NI, VL, SX and EL
V					0.208	5.3			NI, VL, SX and EL

Material: Zinc Alloy

For 3100 series, part G - Steel zinc plate available with 0.316" (8mm) hole upon special request.



CLEVIS ENDS

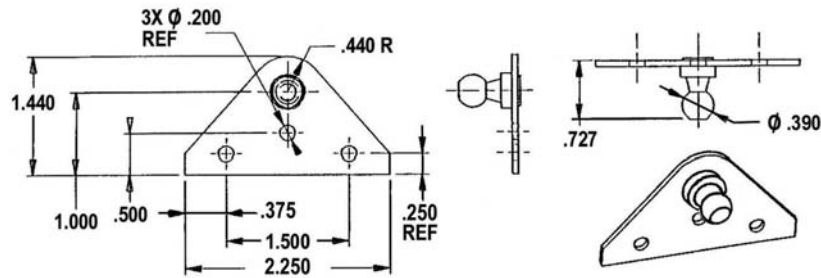


Catalog Number	E		H & W		O & B		For series number
	in	mm	in	mm	in	mm	
3	0.945	24.0	0.236	6.0	0.472	12.0	All except 3100 and G0122
8	1.260	32.0	0.315	8.0	0.630	16.0	G1022 and 3100

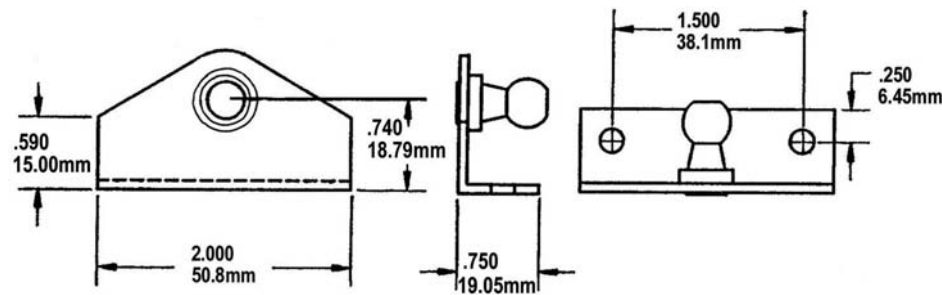
Clevis Ends include removable pin with locking clip. Pin inserts into hole "B."

NITROGEN GAS SPRINGS - MOUNTING BRACKETS - G, NI, SX, VL AND EL SERIES

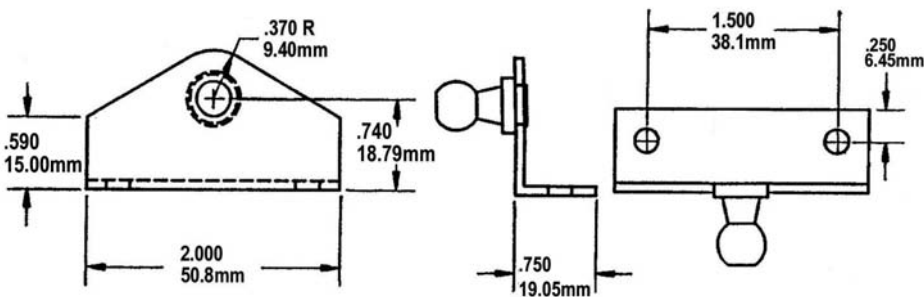
Our standard mounting brackets allow the builder to eliminate the need for additional weldments or fabricating a mount. These are designed for our standard ball end and come with the ball stud riveted into the bracket. Brackets are suitable for forces under 120 pounds (535N).



Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1020	Steel Zinc Plate				
B-1020-BP	Black Zinc Plate	0.203	5.2	0.075	1.9
BX-1020	Stainless Steel				

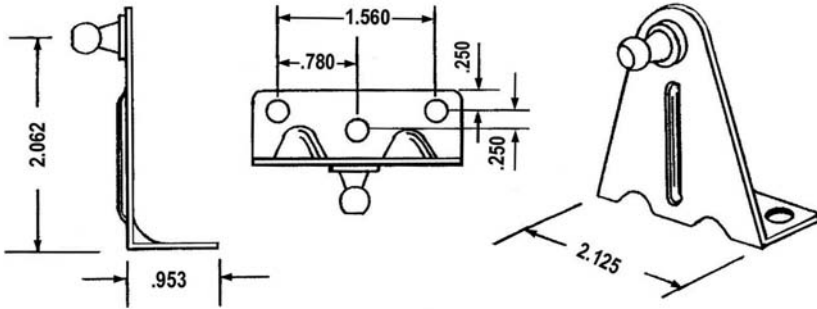


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1010	Steel Zinc Plate				
B-1010-BP	Black Zinc Plate	0.203	5.2	0.075	1.9
BX-1010	Stainless Steel				

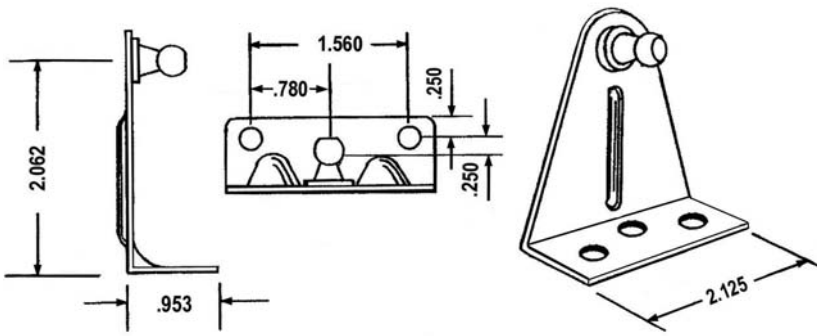


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1015	Steel Zinc Plate				
B-1015-BP	Black Zinc Plate	0.203	5.2	0.075	1.9
BX-1015	Stainless Steel				

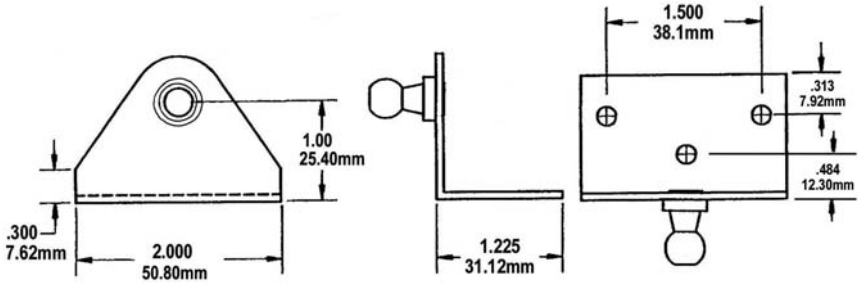




Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1045	Steel Zinc Plate	0.203	5.2	0.105	2.7
B-1045-BP	Black Zinc Plate	0.203	5.2	0.105	2.7
BX-1045	Stainless Steel	0.203	5.2	0.105	2.7

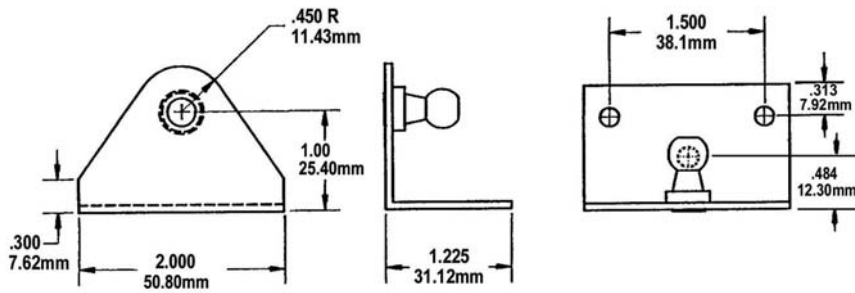


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1050	Steel Zinc Plate	0.203	5.2	0.105	2.7
BX-1050	Stainless Steel	0.203	5.2	0.105	2.7

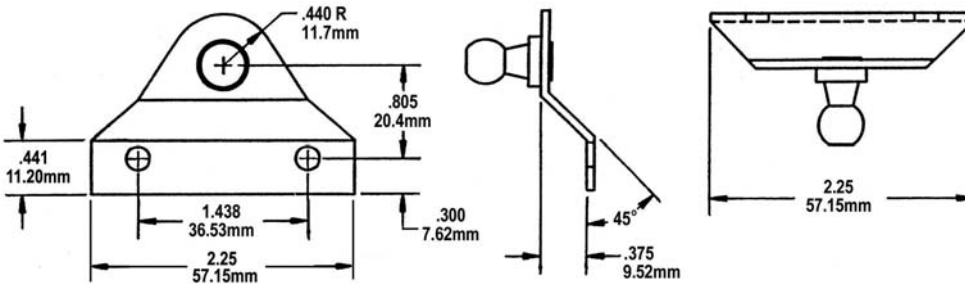


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1060	Steel Zinc Plate	0.203	5.2	0.105	2.7
B-1060-BP	Black Zinc Plate	0.203	5.2	0.105	2.7
BX-1060	Stainless Steel	0.203	5.2	0.105	2.7

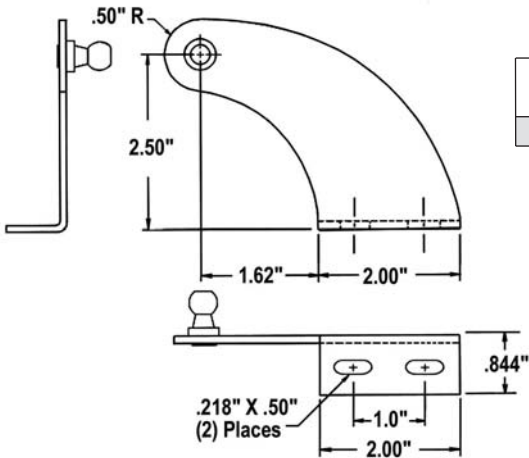




Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1080	Steel Zinc Plate				
B-1080-BP	Black Zinc Plate	0.203	5.2	0.105	2.7
BX-1080	Stainless Steel				

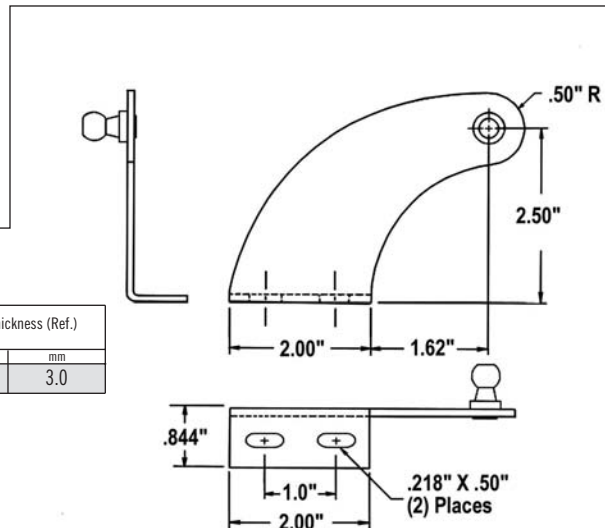


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1025	Steel Zinc Plate				
B-1025-BP	Black Zinc Plate	0.203	5.2	0.075	1.9
BX-1025	Stainless Steel				

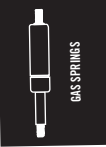


Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1125-BP	Steel - Black Powder Coat	0.218 x .500	5.5 x 12.7	0.120	3.0

Catalog Number	Material	Mounting Hole		Material Thickness (Ref.)	
		in	mm	in	mm
B-1120-BP	Steel - Black Powder Coat	0.218 x .500	5.5 x 12.7	0.120	3.0



Area with horizontal lines for notes.



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