

- One-piece compact design
- Bronze graphite-plugged bushing
- Easily replaces lower quality retainers
- Better handling of side load



Guided Retainers

SUPERIOR GUIDANCE & RETENTION

Lamina Guided Retainers



Lamina Guided Retainers are precision guide pin & bushing/retainer assemblies that occupy much less space in the die than traditional pin and retainer combinations.



Guide and retain the pad or stripper plate in progressive stamping dies, or use on stock rails and stock dies with a lifter plate. Lamina Guided Retainers reduce machining cost and save space within your die.

Lamina's advanced design offers the following features:

Tight Assembly Tolerances

- Superior guiding, with the same assembly clearance as traditional pins and bushings
- Greater positional accuracy

Strength at the Pad

- Accomplished with steel load plates
- No SHCS threaded into the pin

Strength at the Pin Head

- Unique one piece construction

Bronze Graphite-Plugged Bushing

- Longer life
- Self lubricating
- No galling

Greater Static Shear Load

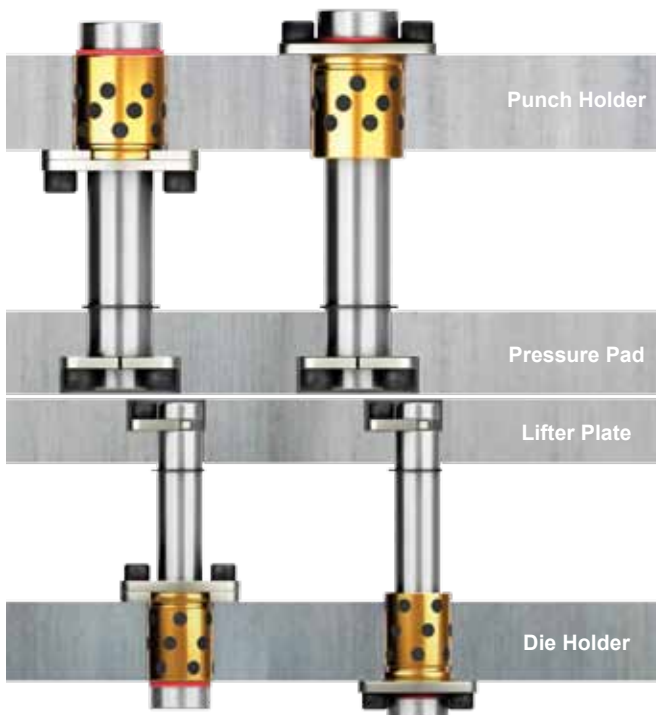
- Assembly
- Pin Head
- Pin Pad Fastening End

Optional Mounting of Bushing

- Can be mounted on either side of the plate for additional clearance, solving design issues
- Greater strength

Lamina Guided Retainers are available in 3 pin diameters, ranging in 1/8 inch increment lengths from 3.50 to 16.00 inches. Two bushing lengths are offered for each pin diameter.

* Patent Pending.



To configure and download CAD data:

daytonlamina.com/guided-retainers

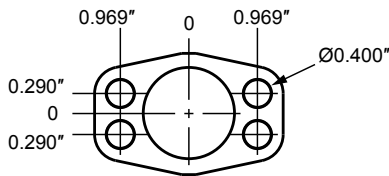
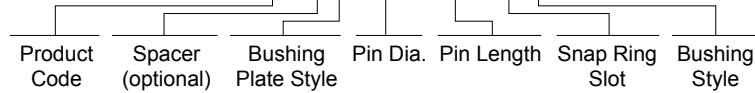
LGA__100 — Guided Retainer with 1.0 Inch Dia. Pin

How to Order

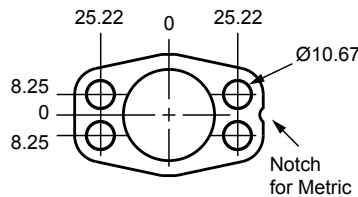
- ◆ Optionally choose a spacer plate (S).
- ◆ Choose a metric (M) or English (E) mount bushing plate.
- ◆ Choose a pin length from 3.50 to 16.00 in 1/8 inch increments.
- ◆ Use the table below to choose the snap ring slot number.
- ◆ Choose a short (S) or long (L) bushing.
- ◆ Two load plates are included with each assembly.
- ◆ Socket Head Cap Screws not included.

Example Part Callout

LGASE100-575-3-S



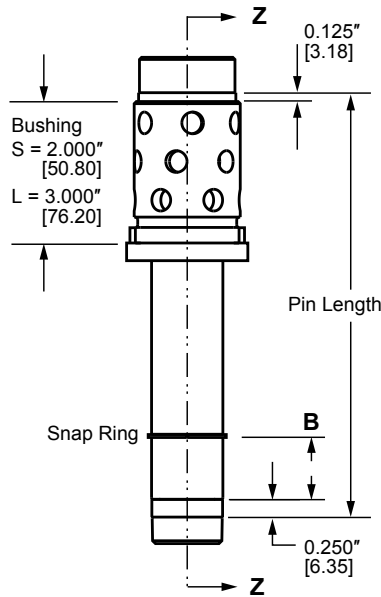
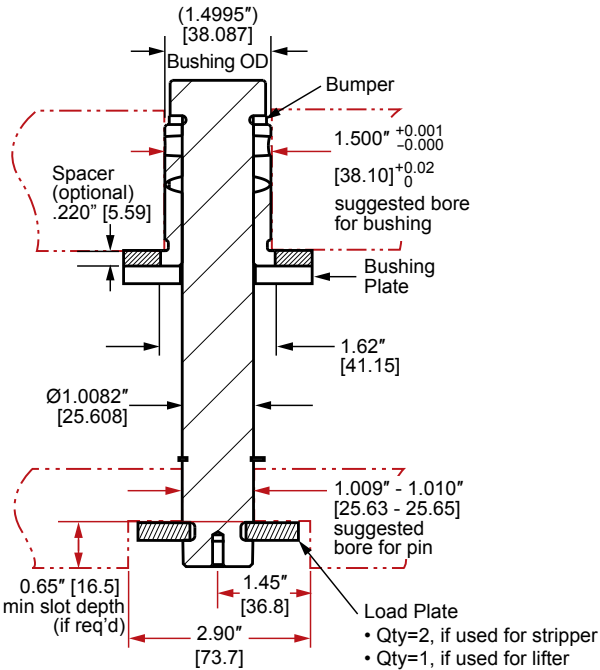
ENGLISH MOUNT BUSHING PLATE



METRIC MOUNT BUSHING PLATE



B Dim.	Snap Ring Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

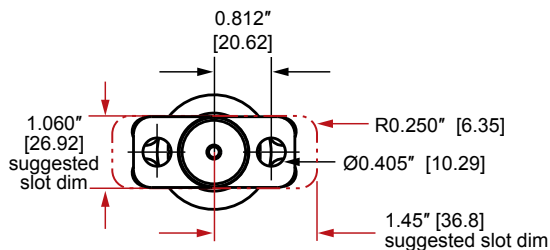


*Example Pin Replacement Callout

LGP-100-575-3

Pin Length Snap Ring Slot

SECTION Z-Z



Replacement Parts

Part #	Description
LGS-100	Spacer Plate
LGSR-100	Snap Ring
LGR-100	Load Plate
LGD-100	Bumper Washer
LGBPE-100	Bushing Plate, English Mount
LGBPM-100	Bushing Plate, Metric Mount
LGB100-S	Bushing, 2.000\"/>
LGB100-L	Bushing, 3.000\"/>
LGP-100-xxx-x*	Pin

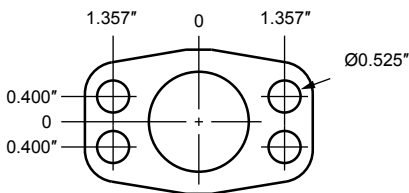
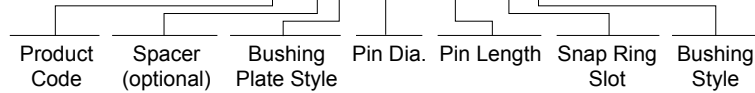
LGA__150 — Guided Retainer with 1.5 Inch Dia. Pin

How to Order

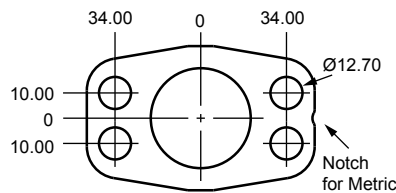
- ◆ Optionally choose a spacer plate (S).
- ◆ Choose a metric (M) or English (E) mount bushing plate.
- ◆ Choose a pin length from 3.75 to 16.00 in 1/8 inch increments.
- ◆ Use the table below to choose the snap ring slot number.
- ◆ Choose a short (S) or long (L) bushing.
- ◆ Two load plates are included with each assembly.
- ◆ Socket Head Cap Screws not included.

Example Part Callout

LGASM150-575-5-L

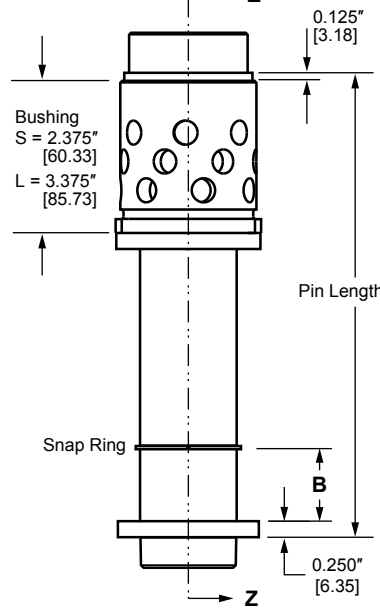
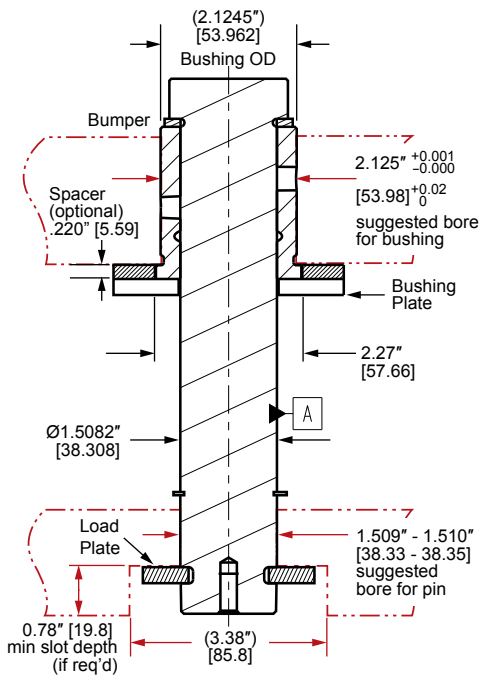


ENGLISH MOUNT BUSHING PLATE



METRIC MOUNT BUSHING PLATE

B Dim.	Snap Ring Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

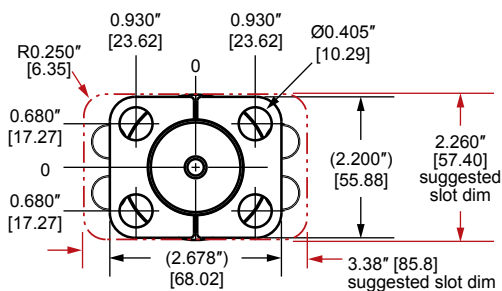


***Example Pin Replacement Callout**

LGP-150-575-5

Pin Length Snap Ring Slot

SECTION Z-Z



Replacement Parts

Part #	Description
LGS-150	Spacer Plate
LGSR-150	Snap Ring
LGR-150	Load Plate
LGD-150	Bumper Washer
LGBPE-150	Bushing Plate, English Mount
LGBPM-150	Bushing Plate, Metric Mount
LGB150-S	Bushing, 2.375" Length
LGB150-L	Bushing, 3.375" Length
LGP-150-xxx-x*	Pin

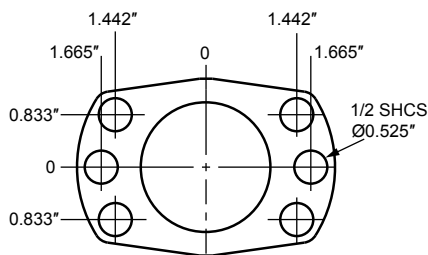
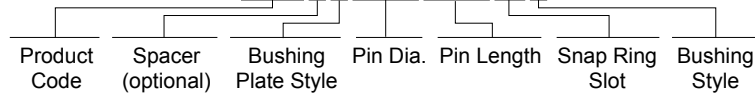
LGA__200 — Guided Retainer with 2.0 Inch Dia. Pin

How to Order

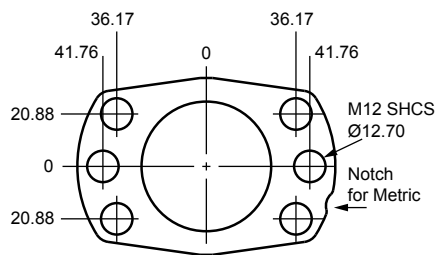
- ◆ Optionally choose a spacer plate (S).
- ◆ Choose a metric (M) or English (E) mount bushing plate.
- ◆ Choose a pin length from 5.00 to 16.00 in 1/8 inch increments.
- ◆ Use the table below to choose the snap ring slot number.
- ◆ Choose a short (S) or long (L) bushing.
- ◆ Two load plates are included with each assembly.
- ◆ Socket Head Cap Screws not included.

Example Part Callout

LGASE200-875-5-S

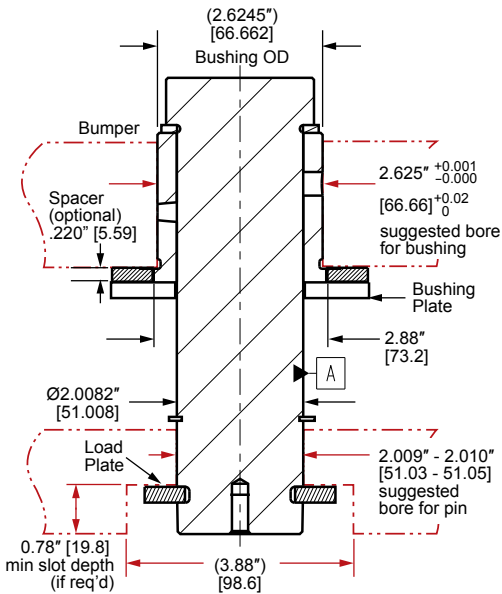


ENGLISH MOUNT BUSHING PLATE

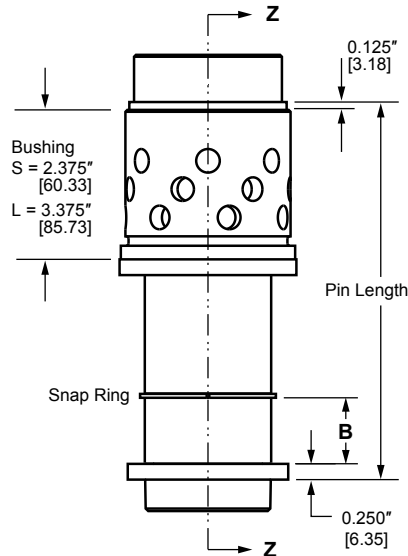


METRIC MOUNT BUSHING PLATE

B Dim.	Snap Ring Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6



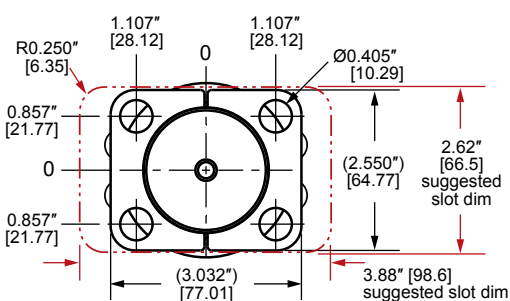
SECTION Z-Z



*Example Pin Replacement Callout

LGP-200-875-5

Pin Length Snap Ring Slot



Replacement Parts

Part #	Description
LGS-200	Spacer Plate
LGSR-200	Snap Ring
LGR-200	Load Plate
LGD-200	Bumper Washer
LGBPE-200	Bushing Plate, English Mount
LGBPM-200	Bushing Plate, Metric Mount
LGB200-S	Bushing, 2.375" Length
LGB200-L	Bushing, 3.375" Length
LGP-200-xxx-x*	Pin

Design Considerations

Application Recommendations

The tables below can help you determine the number of Lamina Guided Retainers necessary to offset the forces generated in the pad or lifter rails in your die. A minimum of 3 guided retainers is recommended.

These tables have a range of 3 to 10 units based on a standard crank press with stroke length of approximately 18 inches. If another type of press is used or the stroke length is greater, you should increase the number of guided retainers.

If there is excessive side load on the pad, heel blocks may be used.

Disclaimer

The true number of guided retainers necessary for your application may depend on many other design factors. These tables are only a guide.

In no event will Dayton Lamina be liable to you or any other person for damages, including any lost profits, lost savings, or incidental or consequential damages arising out of the use or inability to use this data. Specifications are subject to change without notice.

1.00 Inch Guided Retainers

1–250 lbs Pad Weight

Minimum Recommended Bushing Length	Pad Stroke (in)	Strokes per Minute					
		20	30	40	50	60	70
2.00"	0.50	3	3	3	3	3	3
	1.00	3	3	3	3	3	3
	1.50	3	3	3	3	3	4
	2.00	3	3	3	3	3	5
	2.50	3	3	3	3	4	5
	3.00	3	3	3	3	5	6
3.00"	3.50	3	3	3	4	5	7
	4.00	3	3	3	4	6	7
	4.50	3	3	3	4	6	8
	5.00	3	3	3	5	6	8

1.50 Inch Guided Retainers

250–650 lbs Pad Weight

Minimum Recommended Bushing Length	Pad Stroke (in)	Strokes per Minute					
		20	30	40	50	60	70
2.375"	1.50	3	3	3	3	4	4
	2.00	3	3	3	3	4	6
	2.50	3	3	3	4	5	7
	3.00	3	3	3	4	6	8
	3.50	3	3	3	5	6	8
3.375"	4.00	3	3	3	5	7	9
	4.50	3	3	4	5	7	10
	5.00	3	3	4	6	8	10
	5.50	3	3	4	6	8	
	6.00	3	3	4	6	8	

Design Considerations

2.00 Inch Guided Retainers

650–850 lbs Pad Weight

Minimum Recommended Bushing Length	Pad Stroke (in)	Strokes per Minute					
		20	30	40	50	60	70
2.375"	1.50	3	3	3	3	4	5
	2.00	3	3	3	3	4	6
	2.50	3	3	3	4	5	7
	3.00	3	3	3	4	6	8
	3.50	3	3	3	5	7	9
	4.00	3	3	4	5	7	10
	4.50	3	3	4	6	8	
3.375"	5.00	3	3	4	6	9	
	5.50	3	3	4	6	9	
	6.00	3	3	4	7	9	
	6.50	3	3	5	7	10	
	7.00	3	3	5	7	10	
	7.50	3	3	5	7	10	
	8.00	3	3	5	7	10	
	8.50	3	3	5	7		

850–1200 lbs Pad Weight

Minimum Recommended Bushing Length	Pad Stroke (in)	Strokes per Minute					
		20	30	40	50	60	70
2.375"	1.50	3	3	3	4	5	6
	2.00	3	3	3	4	6	8
	2.50	3	3	4	5	7	10
	3.00	3	3	4	6	8	
	3.50	3	3	4	7	9	
	4.00	3	3	5	7	10	
	4.50	3	3	5	8		
3.375"	5.00	3	3	6	8		
	5.50	3	4	6	9		
	6.00	3	4	6	9		
	6.50	3	4	6	10		
	7.00	3	4	7	10		
	7.50	3	4	7	10		
	8.00	3	4	7	10		
	8.50	3	4	7	10		

Commitment to Quality & Customer Satisfaction

Dayton Lamina is a leading manufacturer of tool, die and mold components for the metal-working and plastics industries. As a customer-focused, world-class supplier of choice, we provide the brands, product breadth, distribution network and technical support for all your metal forming needs.

Our goal is to give our customers the most innovative and value-added products and services.



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*Dayton Lamina's line of Danly products is available only to North America.

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