



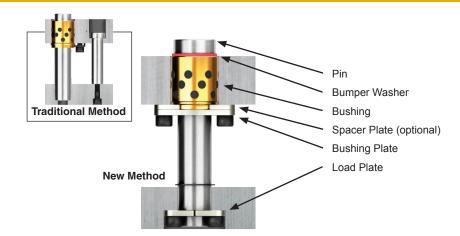
Guided Retainers

SUPERIOR GUIDANCE & RETENTION

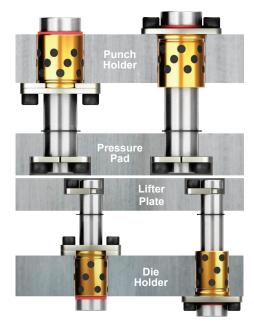
Lamina Guided Retainers

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.



Versatile Mounting



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 Shear Load capabilities from axial loads and side loads due to pin engagement in pad and hardened steel load plates.

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 5 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.

*U.S. Patent No. 11,504,759 International Patents Pending

To configure and download CAD data:

daytonlamina.com/guided-retainers

Application Recommendations

This table is for reference only. Design considerations should be based on your own calculations.

Table is based on average speed of around 25-35 SPM.

At least three units should be used, and they should be equally spaced and not in line.

If there is excessive side load on the pad, heel blocks should be added.

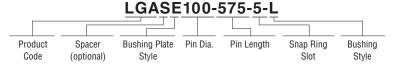
Pin Dia.	Product Code	Travel (in)	Pad Weight (lbs) per Unit
		< 2	22
1.00	LGA100	2 - 3	19
		> 3	15
		< 2.5	50
1.25	LGA125	2.5 - 3.75	44
		> 3.75	33
		< 3	71
1.50	LGA150	3 - 4.5	62
		> 4.5	47
		< 3.5	111
1.75	LGA175	3.5 - 5.25	97
		> 5.25	73
		< 4	186
2.00	LGA200	4 - 6	162
		> 6	122

New and Extended Longer Bushing Options

How to Order

- Made from bronze material with graphite plugs
- Available in 3", 4", and 5" lengths
- Available in all five nominal pin diameters; 1", 1-1/4", 1-1/2",
- 1-3/4", and 2"
- · Available with or without spacer
- Provides additional guidance to extend assembly life
- Add S-L-XS-XL-XXS-XXL for bushing style

Example Part Callout



NEW EXTENDED AND TALLER BUSHING OPTIONS

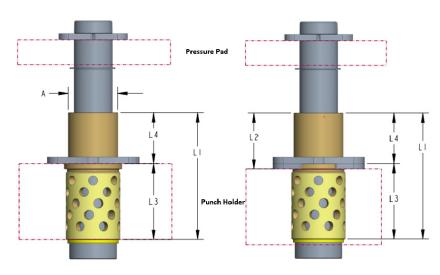
Take advantage of unused space above or below the base to optimize bushing length, enhancing the performance and durability of your production equipment.

MAXIMIZE BUSHING LENGTH FOR SUPERIOR GUIDANCE

We recommend selecting the longest possible bushing that fits within your available space. This will improve alignment, extend the lifespan of your assembly, and increase productivity.

Without Spacer

With Spacer



Style	L4	L3	L1	L2 (spacer only)
XS	1.00	2.00	3.00	1.22
XL	1.00	3.00	4.00	1.22
XXS	2.00	2.00	4.00	2.22
XXL	2.00	3.00	5.00	2.22

Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45



LGA 100 — Guided Retainer with 1.00 Inch Dia. Pin

Without Spacer

How to Order

• Optionally choose a spacer plate (S) for retrofitting an existing tool.

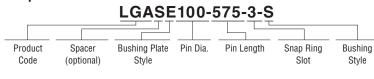
• Choose a metric (M) or English inch (E) mount bushing plate.

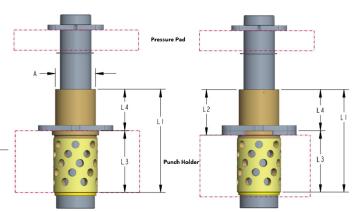
• Choose a pin length from 3.50 to 16.00 in 1/8 inch increments.

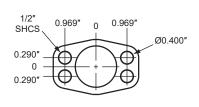
• Use the table below to choose the snap ring slot number.

- Choose a S, L, XS, XL, XXS, or XXL for bushing style
- Two load plates are included, hardened to 28-34 HRc.
- Socket Head Cap Screws not included.

Example Part Callout





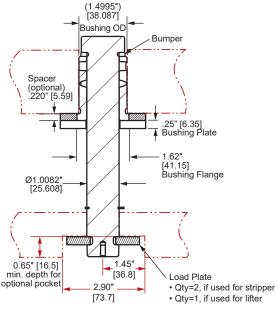


Style	L4	L3	L1	L2 (spacer only)
XS	1.00	2.00	3.00	1.22
XL	1.00	3.00	4.00	1.22
XXS	2.00	2.00	4.00	2.22
XXL	2.00	3.00	5.00	2.22

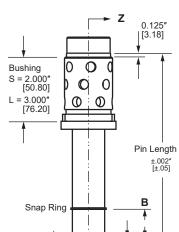
Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45

With Spacer

INCH MOUNT BUSHING PLATE



BUSHING PLATE



0.250" [6.35]

.375 ±.002" ¹

1° taper

of assembly

[9.53 ±.05]

Snap Ring Positions

В	Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

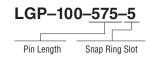
Bore Sizes

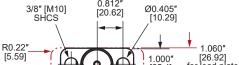
Pin	1.009 - 1.010" [25.63 - 25.65]
Bushing	1.500 - 1.501" [38.10 - 38.12]

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" Length
LGB100-L	Bushing, 3.000" Length
LGP-100-xxx-x*	Pin

*Example Pin Replacement Callout



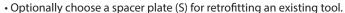


SECTION Z-Z

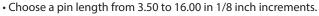
0.22" | 1.060" | [26.92] | for load plate | install/removal

LGA 125 — Guided Retainer with 1.25 Inch Dia. Pin

How to Order

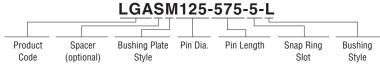


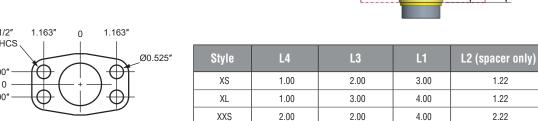
• Choose a metric (M) or English inch (E) mount bushing plate.



- Use the table below to choose the snap ring slot number.
- Choose a S, L, XS, XL, XXS, or XXL for bushing style
- Two load plates are included, hardened to 28-34 HRc.
- Socket Head Cap Screws not included.

Example Part Callout



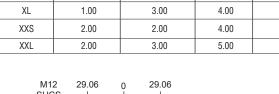


L4 L2 L4 L1 Punch Holder L3		Pressure Pad	
L3 Funch holder	A	LI L2	L4 L1
	L3	Punch Holder	Ţ

Without Spacer

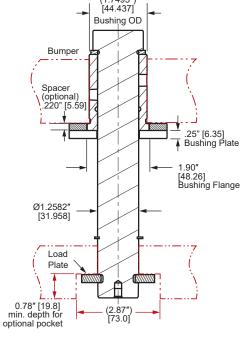
1.163"	0		1.163"	
- 1	- 1			
	$-\pm$	_	\rightarrow	Ø0.525"
\bigcirc	$\overline{}$	1		
+	(— ∔	\rightarrow	–Y I	
+			\bigcirc	_
4	\rightarrow	_	_	
	1.163"	1.163" 0	1.163" 0	1.163" 0 1.163"

INCH MOUNT	
BUSHING PLATE	

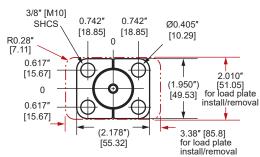


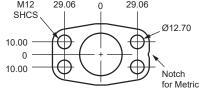
Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45

With Spacer

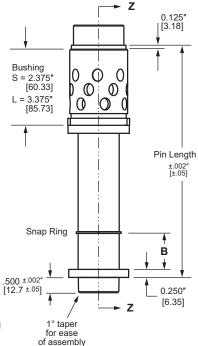


SECTION Z-Z





METRIC MOUNT BUSHING PLATE



Snap Ring Positions

2 22

В	Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

Bore Sizes

Pin	1.259 - 1.260" [31.98 - 32.00]
Bushing	1.750 - 1.751" [44.45 - 44.47]

Replacement Parts

Part #	Description	
LGS-125	Spacer Plate	
LGSR-125	Snap Ring	
LGR-125	Load Plate	
LGD-125	Bumper Washer	
LGBPE-125	Bushing Plate, English Mount	
LGBPM-125	Bushing Plate, Metric Mount	
LGB125-S	Bushing, 2.375" Length	
LGB125-L	Bushing, 3.375" Length	
LGP-125-xxx-x*	Pin	



LGA 150 — Guided Retainer with 1.50 Inch Dia. Pin

Without Spacer

How to Order

• Optionally choose a spacer plate (S) for retrofitting an existing tool.

• Choose a metric (M) or English inch (E) mount bushing plate.

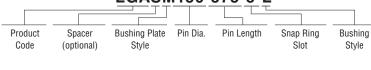
• Choose a pin length from 3.50 to 16.00 in 1/8 inch increments.

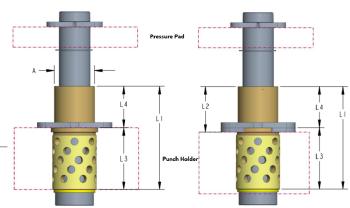
• Use the table below to choose the snap ring slot number.

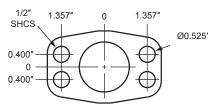
- Choose a S, L, XS, XL, XXS, or XXL for bushing style
- Two load plates are included, hardened to 28-34 HRc.
- Socket Head Cap Screws not included.

Example Part Callout

LGASM150-575-5-L





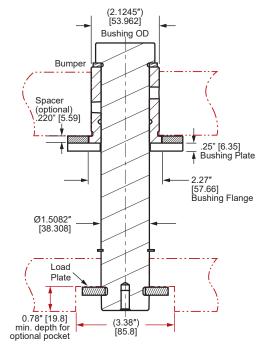


INCH MOUNT BUSHING PLATE

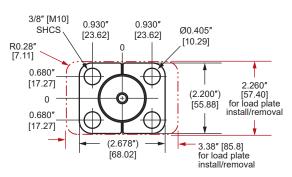
Style	L4	L3	L1	L2 (spacer only)
XS	1.00	2.00	3.00	1.22
XL	1.00	3.00	4.00	1.22
XXS	2.00	2.00	4.00	2.22
XXL	2.00	3.00	5.00	2.22

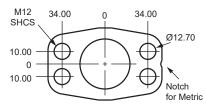
Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45

With Spacer

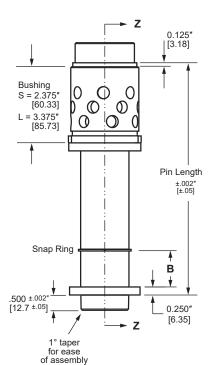


SECTION Z-Z





METRIC MOUNT BUSHING PLATE



Snap Ring Positions

В	Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

Bore Sizes

Pin	1.509 - 1.510" [38.33 - 38.35]
Bushing	2.125 - 2.126" [53.98 - 54.00]

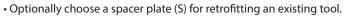
Replacement Parts

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 175 — Guided Retainer with 1.75 Inch Dia. Pin

How to Order

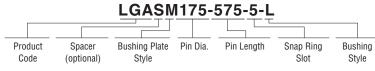


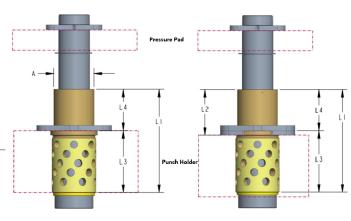
• Choose a metric (M) or English inch (E) mount bushing plate.

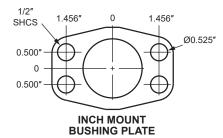


- Use the table below to choose the snap ring slot number.
- Choose a S, L, XS, XL, XXS, or XXL for bushing style
- Two load plates are included, hardened to 28-34 HRc.
 Socket Head Cap Screws not included.

Example Part Callout





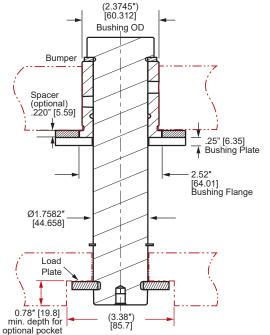


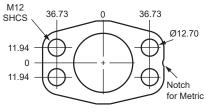
Style	L4	L3	L1	L2 (spacer only)
XS	1.00	2.00	3.00	1.22
XL	1.00	3.00	4.00	1.22
XXS	2.00	2.00	4.00	2.22
XXL	2.00	3.00	5.00	2.22

Without Spacer

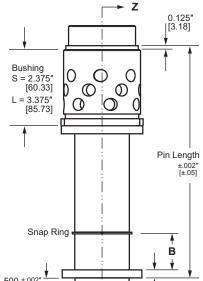
Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45

With Spacer





METRIC MOUNT BUSHING PLATE



Snap Ring Positions

В	Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

Bore Sizes

Pin	1.759 - 1.760" [44.68 - 44.70]
Bushing	2.375 - 2.376" [60.33 - 60.35]

Replacement Parts

Part #	Description
LGS-175	Spacer Plate
LGSR-175	Snap Ring
LGR-175	Load Plate
LGD-175	Bumper Washer
LGBPE-175	Bushing Plate, English Mount
LGBPM-175	Bushing Plate, Metric Mount
LGB175-S	Bushing, 2.375" Length
LGB175-L	Bushing, 3.375" Length
LGP-175-xxx-x*	Pin



SHCS 0.97([24.6] R0.28"	41 [24.64] ^{Ø0}	.405" 0.29]	Shap King T		♦ B ∀
0.708" [17.98] 0 0.708" [17.98]		.500 2.260" [12.1 2.200") [57.40] [55.88] for load plate install/removal	7 ±.05] 1° taper for ease of assembly	z	0.250" [6.35]

LGA 200 — Guided Retainer with 2.00 Inch Dia. Pin

Without Spacer

How to Order

• Optionally choose a spacer plate (S) for retrofitting an existing tool.

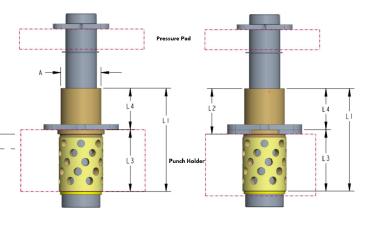
• Choose a metric (M) or English inch (E) mount bushing plate.

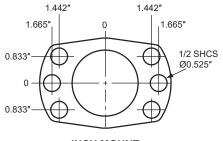
 \bullet Choose a pin length from 3.50 to 16.00 in 1/8 inch increments.

- Use the table below to choose the snap ring slot number.
- Choose a S, L, XS, XL, XXS, or XXL for bushing style
- Two load plates are included, hardened to 28-34 HRc.
- Socket Head Cap Screws not included.

Example Part Callout





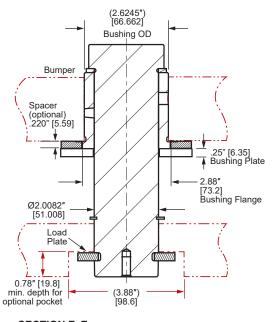


Style	L4	L3	L1	L2 (spacer only)
XS	1.00	2.00	3.00	1.22
XL	1.00	3.00	4.00	1.22
XXS	2.00	2.00	4.00	2.22
XXL	2.00	3.00	5.00	2.22

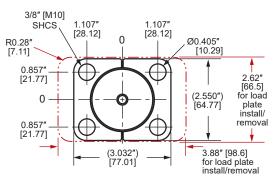
Nom. Dia.	A
1.00	1.33
1.25	1.58
1.50	1.95
1.75	2.20
2.00	2.45

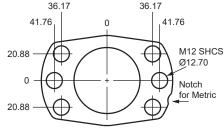
With Spacer

INCH MOUNT BUSHING PLATE

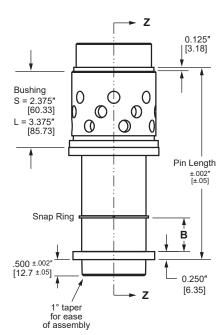


SECTION Z-Z





METRIC MOUNT BUSHING PLATE



Snap Ring Positions

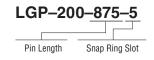
В	Slot
.50	1
.75	2
1.00	3
1.25	4
1.50	5
2.00	6

Bore Sizes

Pin	2.009 - 2.010" [51.03 - 51.05]
Bushing	2.625 - 2.626" [66.68 - 66.70]

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





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 valueadded products and services.











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

www.daytonlamina.com