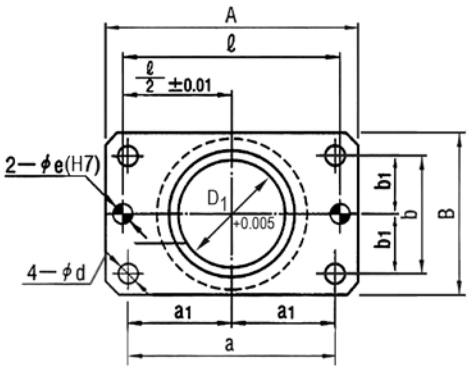
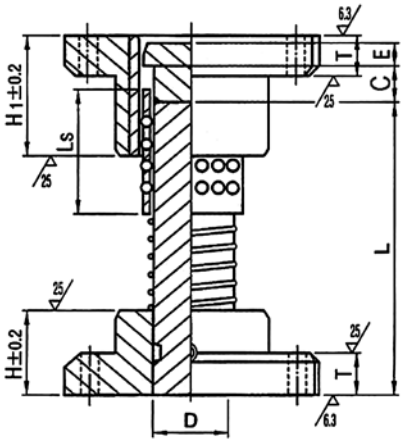
Lamina™

SURFACE MOUNT
BALL BEARING ASSEMBLIES

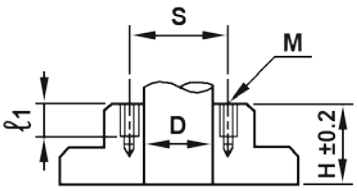
Surface Mount Ball Bearing Guide Post Assembly





TAPPING FOR FIXING STROKE END BLOCK

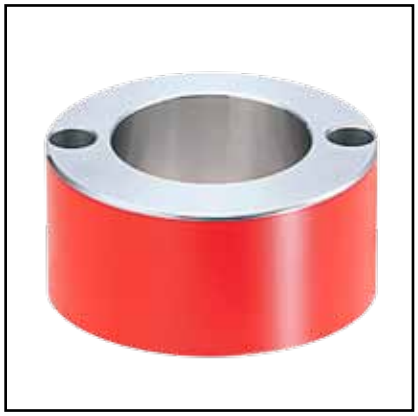
D	M	ℓ1	S
32	4	12	45
38	5	15	60
50	6	15	72
60	8	20	92

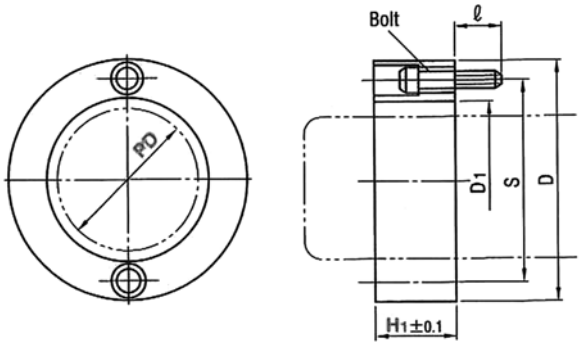


- Add “M” to end of part number to designate mounting holes option for optional stroke end blocks.
- Assemblies are supplied with mounting bolts and dowel pins.

Part Number	D	L	D1	A	B	a	b	d	H	H1	T	C	E	Ls	ℓ	a1	b1	e (H7)	Mounting Bolts	Dowel Pins
ADGPS32X110	32	110	40	100	58	76	36	11	40	60	20	25	5	60	76	38	18	8	10 x 1.5 x 40mm	8 – 30
ADGPS32X120		120																		
ADGPS32X130		130																		
ADGPS32X140		140																		
ADGPS32X150		150																		
ADGPS32X160		160																		
ADGPS32X170		170																		
ADGPS38X130	38	130	48	130	75	100	44	11	50	70	25	30	10	70	100	50	22	10	10 x 1.5 x 45mm	10 – 40
ADGPS38X140		140																		
ADGPS38X150		150																		
ADGPS38X160		160																		
ADGPS38X170		170																		
ADGPS38X180		180																		
ADGPS38X200		200																		
ADGPS38X220		220																		
ADGPS38X240		240																		
ADGPS38X260		260																		
ADGPS38X300		300																		
ADGPS50X170	50	170	60	155	90	125	60	14	65	90	25	40	10	90	125	62.5	30	10	12 x 1.75 x 50mm	10 – 40
ADGPS50X180		180																		
ADGPS50X200		200																		
ADGPS50X220		220																		
ADGPS50X240		240																		
ADGPS50X260		260																		
ADGPS50X300		300																		
ADGPS50X350		350																		
ADGPS60X200	60	200	70	190	120	150	80	18	75	100	30	50	15	100	150	75	40	13	16 x 2 x 60mm	13 – 50
ADGPS60X220		220																		
ADGPS60X240		240																		
ADGPS60X260		260																		
ADGPS60X280		280																		
ADGPS60X300		300																		
ADGPS60X350		350																		

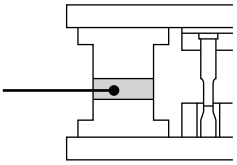
Stroke End Blocks – Flat Type





FLAT TYPE

Stroke end blocks can be used to adjust the stroke.



Part Number	PD	D	D1	D2*	S	Bolt	ℓ	H1
SEBA3210R	32	56	41	45	45	M4xP0.7	10	10
SEBA3215R								15
SEBA3220R								20
SEBA3225R								25
SEBA3230R								30
SEBA3235R								35
SEBA3240R								40
SEBA3245R								45
SEBA3250R								50
SEBA3815R	38	72	49	56	60	M5xP0.8	10	15
SEBA3820R								20
SEBA3825R								25
SEBA3830R								30
SEBA3835R								35
SEBA3840R								40
SEBA3845R								45
SEBA3850R								50
SEBA5020R	50	86	62	68	72	M6xP1.0	10	20
SEBA5025R								25
SEBA5030R								30
SEBA5035R								35
SEBA5040R								40
SEBA5045R								45
SEBA5050R								50
SEBA6020R	60	112	76	84	92	M8xP1.25	12	20
SEBA6025R								25
SEBA6030R								30
SEBA6035R								35
SEBA6040R								40
SEBA6045R								45
SEBA6050R								50

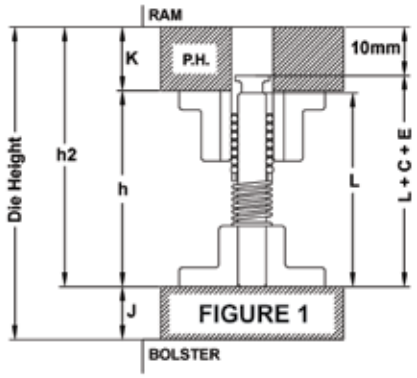
Selection Guide

Selection Guide for the Surface Mount Guide Post System

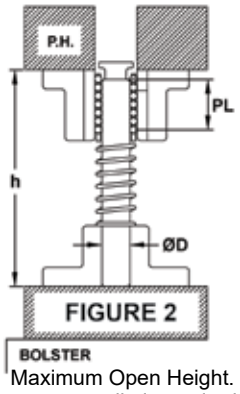
The following points should be considered when selecting Surface Mounted Ball Bearing Assemblies:

- At the bottom of the press stroke (**BDC**), the length of the preloaded ball bearing engagement should be equal to or greater than the guide post diameter (**D**) for proper guidance and stability (Fig. 6).
- **h2 = L + C + E + 10mm** (Fig 1) – 10mm is to allow for regrinding and safety considerations.
  For **C + E**, see Page 2.
- How to determine **K** (minimum Punch Holder thickness): Reference (Fig. 1) and the gray chart (Page 5).
- Example: If **h** = 190mm and you select an ADGPS38X200 assembly, from the gray table (Page 5), ADGPS38X200 would have an **h2** dimension of 250mm.
  250mm – 190mm (**h**) = 60mm.
  K is required to be 60mm or greater.
- As shown in (Fig. 3), select guide post length so (**h**) includes as much contact length (**PL**) as possible.

Use the figures below for reference when using the tables on Page 5.

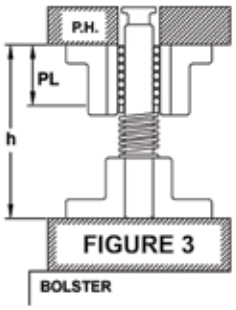


L = Guide Post Length
C + E = Fixed Stopper Height

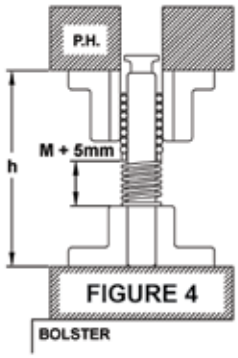


Maximum Open Height.
Upper contact limit required for guide post/bushing functions.
(PL ≥ D)

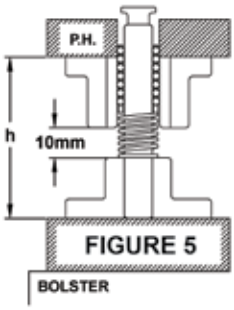
Recommended (h) Height Shown. Ideal Preload.



The post, bushing and ball retainer come into contact at the maximum length.

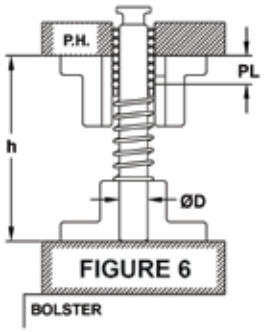


Lower movable limit of **ball retainer**.
M = Solid height of spring.
5mm = Allowance for grinding and safety considerations.



Lower movable limit of **bushing**.
5mm = Allowance for grinding and safety considerations.

Minimum Shut Height Shown.



Lower contact limit required for guide posts/bushing functions.
(PL ≥ D)

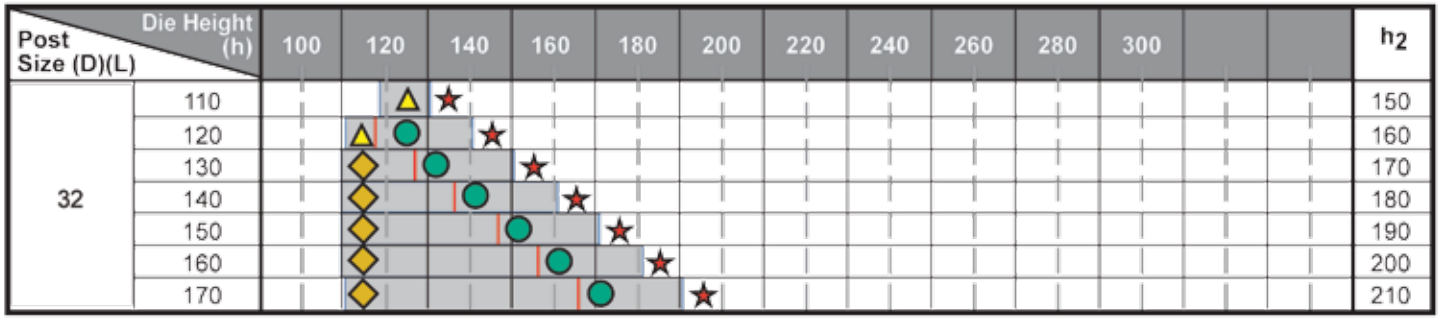
K = Punch Holder Thickness
J = Die Holder Thickness
L = Guide Post Length
D = Guide Post Diameter
C + E = Fixed Stopper Length
PL = Length of Ball Cage in Preload Condition
M = Spring Height to Solid

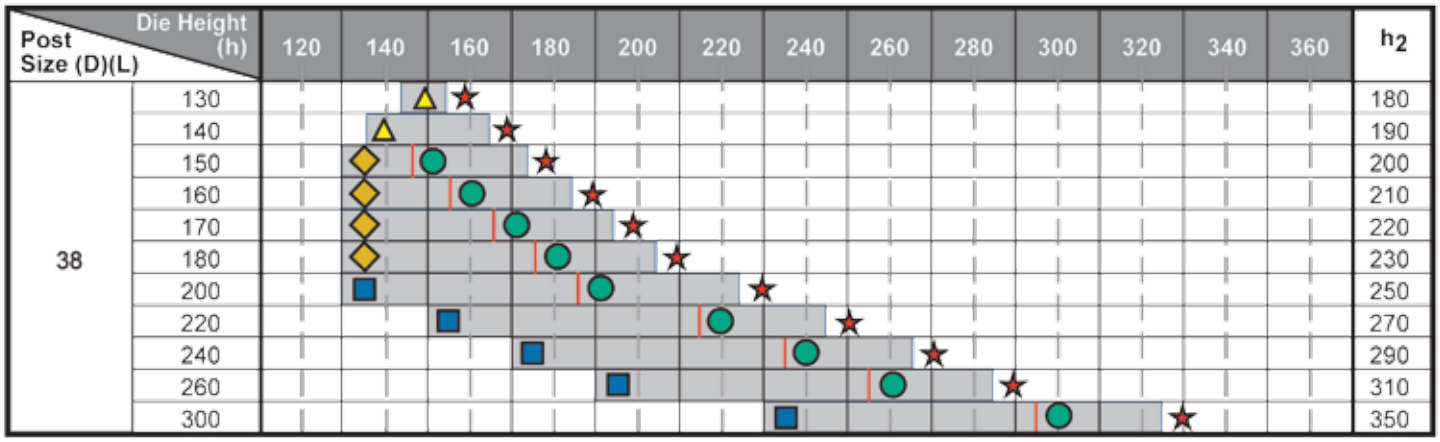
Effective Fitting Range

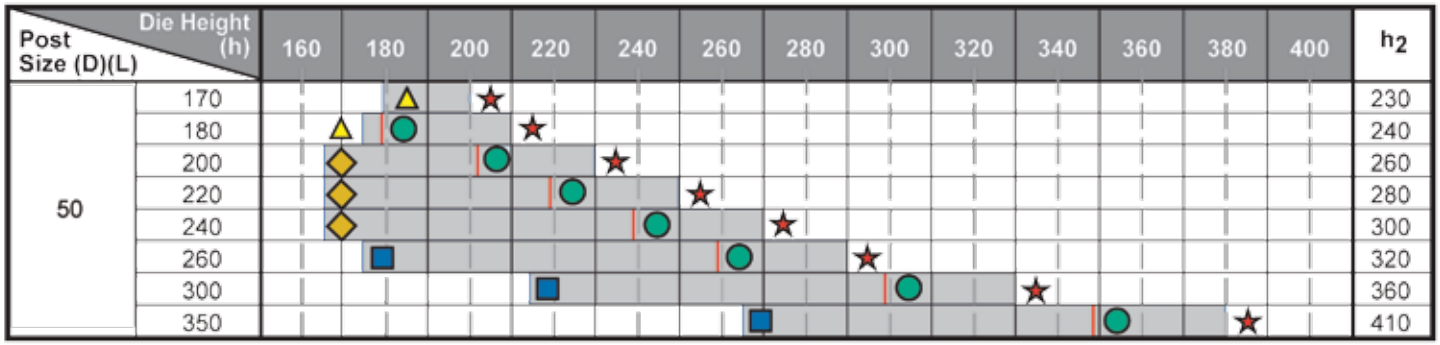
Based on Conditions Shown on Page 4, Figs. 2 – 6

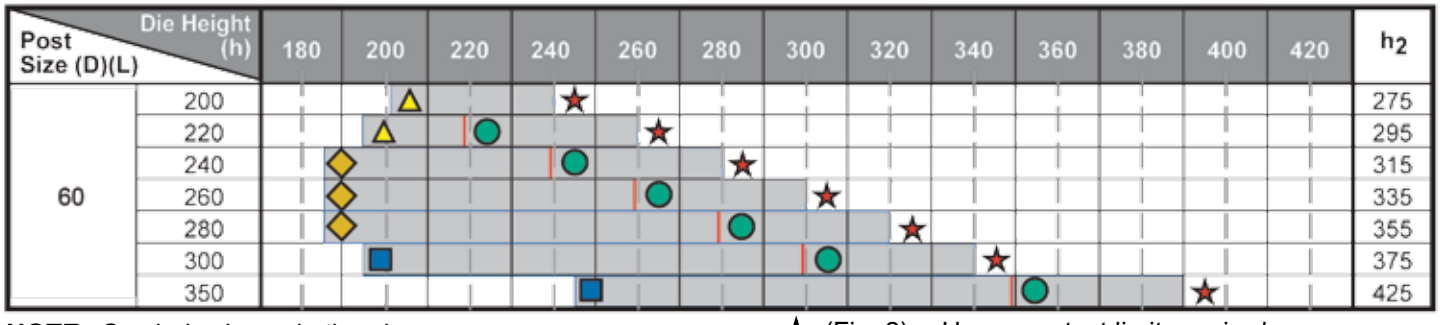
The tables below show:

– Shaded gray cells below show workable range of travel of assembly through stroke.
– To the left end of shaded gray cells shows minimum inside die height of assembly on closed.
– To the right of that, shaded gray cells shows inside die height through range of travel.
– To the far right of shaded gray cells shows inside die height at end of workable travel.









NOTE: Symbols shown in the above tables are for reference only.

★	(Fig. 2)	Upper contact limit required on **open**
●	(Fig. 3)	**Ideal preload** recommended (**h**) shown
▲	(Fig. 4)	Lower movable limit of **Ball Retainer**
◆	(Fig. 5)	Lower movable limit of **Bushing**
■	(Fig. 6)	Lower contact limit required on **closed**

Replacement Items

Complete Assembly Number	Replacement Springs	Nominal Pin Size	Spring ID	Spring OD	Spring Length	Replacement Ball Bearing Retainers	Replacement End Caps (FIXED STOPPER) w/ Bolt	Replacement Bolt & Dowel Kits
ADGPS32X110	SPR32X110	32	32.5	35.7	60	AMS32-060-4	STR-F32 (M8-40 SHCS)	ADGPS-BD-KIT-32 (8) 10 x 1.5 x 40mm bolts (4) 8-30 dowels
ADGPS32X120	SPR32X120				60			
ADGPS32X130	SPR32X130				80			
ADGPS32X140	SPR32X140				80			
ADGPS32X150	SPR32X150				100			
ADGPS32X160	SPR32X160				100			
ADGPS32X170	SPR32X170				120			
ADGPS38X130	SPR38X130	38	38.5	42.5	60	AMS38-070-5	STR-F38 (M8-50 SHCS)	ADGPS-BD-KIT-38 (8) 10 x 1.5 x 45mm bolts (4) 10-40 dowels
ADGPS38X140	SPR38X140				80			
ADGPS38X150	SPR38X150				80			
ADGPS38X160	SPR38X160				100			
ADGPS38X170	SPR38X170				100			
ADGPS38X180	SPR38X180				120			
ADGPS38X200	SPR38X200				140			
ADGPS38X220	SPR38X220				160			
ADGPS38X240	SPR38X240				180			
ADGPS38X260	SPR38X260				200			
ADGPS38X300	SPR38X300				240			
ADGPS50X170	SPR50X170	50	50.5	55.7	100	AMS50-090-5	STR-F50 (M8-65 SHCS)	ADGPS-BD-KIT-50 (8) 12 x 1.75 x 50mm bolts (4) 10-40 dowels
ADGPS50X180	SPR50X180				100			
ADGPS50X200	SPR50X200				120			
ADGPS50X220	SPR50X220				140			
ADGPS50X240	SPR50X240				160			
ADGPS50X260	SPR50X260				180			
ADGPS50X300	SPR50X300				220			
ADGPS50X350	SPR50X350				280			
ADGPS60X200	SPR60X200	60	60.5	66.9	120	AMS60-100-5	STR-F60 (M8-75 SHCS)	ADGPS-BD-KIT-60 (8) 16 x 2 x 60mm bolts (4) 13-50 dowels
ADGPS60X220	SPR60X220				140			
ADGPS60X240	SPR60X240				160			
ADGPS60X260	SPR60X260				180			
ADGPS60X280	SPR60X280				200			
ADGPS60X300	SPR60X300				220			
ADGPS60X350	SPR60X350				260			

Ball Bearing Lubrication

Component maintenance is serious business... Always use Ball-Lube® and Ball-Scrubb® to keep ball-bearing components clean and running smooth.

Product Features

BALL-SCRUBB® removes heavy soils, dirt or grease from ball-bearing guide pin assemblies. Just spray it on... wait three minutes... and spray again. Then blow off excess with compressed air. **BALL-SCRUBB®** is an industrial strength cleaner with rust inhibitors, specially formulated to clean debris and grease from all types of ball-bearing assemblies.

BALL-LUBE®, when applied after **BALL-SCRUBB®**, locks out wear by chemically bonding to precision surfaces. It provides a tough, long-lasting shield that protects against oxidation and rust. **BALL-LUBE®** lubricates assemblies and gives them long-time protection against wear, oxidation and heat. Spray liberally on ball-bearing assemblies.

Part Number	BALL-LUBE® Size
ARL016	Pint BALL-LUBE® spray
ARL384	Case (24) 1 Pint BALL-LUBE®
ARL128	Gallon BALL-LUBE®
ARL640	Gallons BALL-LUBE®

Part Number	BALL-SCRUBB® Size
ARS016	1 Pint BALL-SCRUBB® Spray
ARS384	1 Case (24) 1 Pint BALL-SCRUBB®
ARS128	1 Gallon BALL-SCRUBB®
ARS640	5 Gallons BALL-SCRUBB®

Die Lubrication

9-01-52

Product Features

This die lubricant is specially prepared to provide efficient lubrication for guide posts in plain bearing applications.

Part Number	Size
9-01-52	1 Quart
9-02-52	1 Gallon
9-02-521	55 Gallons
9-02-522	15 Gallons

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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