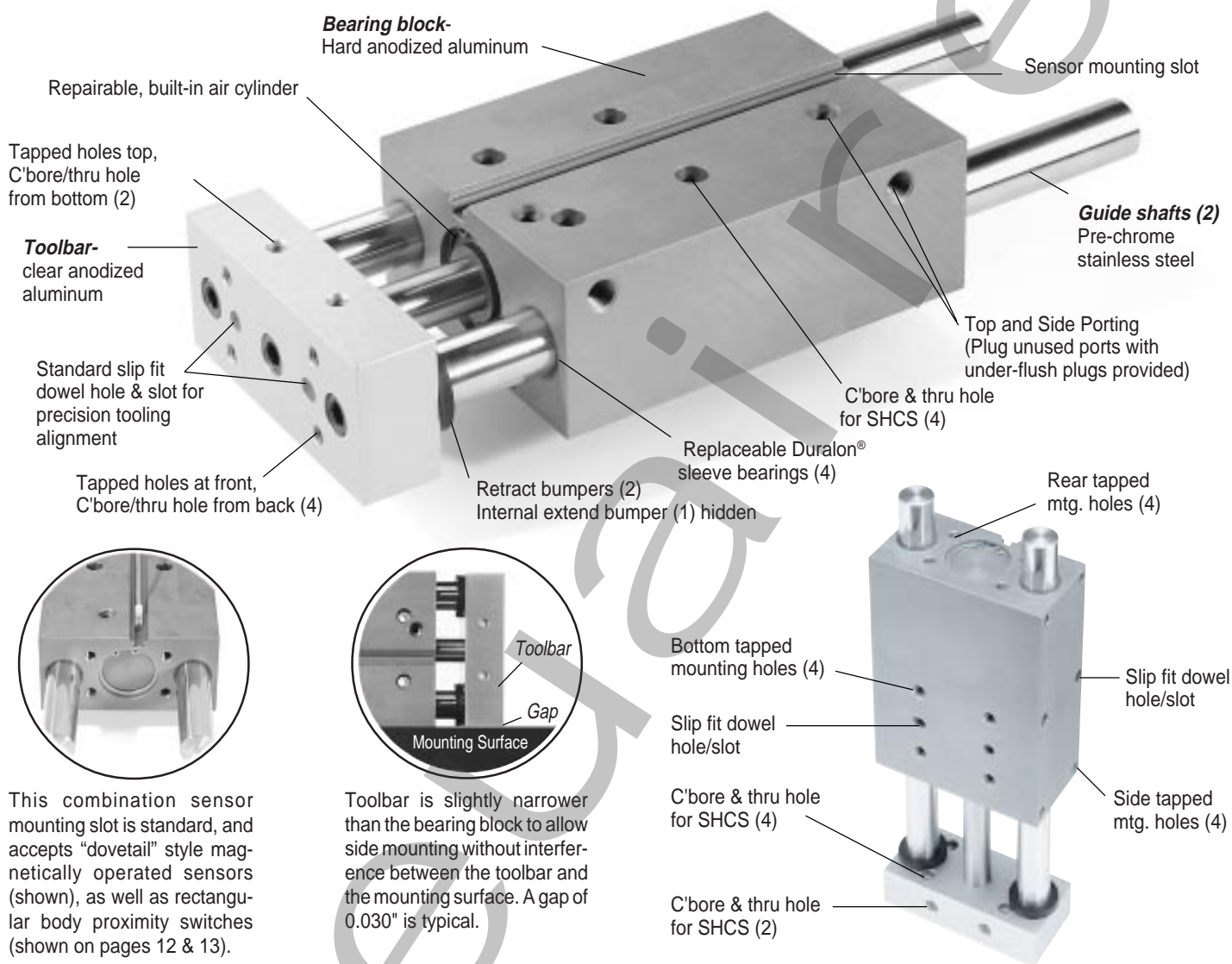


# “GB” Series Linear Slides *Interchangeable, offer*



## Check list of **Standard Features of “GB” Block Style Slides**

- ✓ Tapped/thru hole combination mounting holes top & bottom
- ✓ Tapped holes front face of toolbar (4)
- ✓ Clear anodized toolbar, hard anodized bearing block
- ✓ Extend and retract bumpers
- ✓ Replaceable sleeve bearings
- ✓ Side tapped mounting holes in body
- ✓ Slip fit dowel holes/slots on bottom and side of body
- ✓ Toolbar is slightly narrower than body, allowing side mounting of slide with clearance between toolbar and mounting surface
- ✓ Slip fit dowel hole/slot on front face of toolbar
- ✓ Top and side ports
- ✓ Unique dovetail slot for mounting magnetic sensors or proximity switches
- ✓ Rear tapped holes in body.  
Can be used for rear flange mounting

- ✓ Toolbar has square pattern front face tapped holes (4) that are also counterbored at back for thru bolt mounting
- ✓ Toolbar has vertical tapped/counterbored mounting holes

## Check list of **versatile Options Availability**

- ✓ V – Viton seals allow operation to 325°F
- ✓ E – Magnetic piston for position sensing.
- ✓ T1 – “Blank” toolbar
- ✓ A – Pair of clamp collars with urethane bumpers for extend adjustable stop
- ✓ B – Rear clampbar with urethane bumpers for extend adjustable stop (instead of collars). Also used to actuate optional extend proximity switch.
- ✓ C – Tapped guide shafts at rear
- ✓ D – Rear stopbar, stop bolt and stop plate for adjustable extend stop. Cannot be used with an extend prox switch.
- ✓ F – Rear toolbar; same as front toolbar with matching hole pattern. Cannot be used with extend prox switch.

# ring longer strokes & more features than other block-style slides

## Engineering Data

Model	GB375				GB500				GB750			
Guide Shaft Diameter	3/8"				1/2"				3/4"			
Bore	12 mm (.472")				20 mm (.787")				32 mm (1.260")			
Power Factor Extend	.17				.49				1.25			
Power Factor Retract	.13				.37				0.94			
Stroke (inches)	1/2	1	1-1/2	2	1	2	3	4	1	2	3	4
Slide Weight (pounds)	.58	.74	.88	1.03	1.78	2.36	2.96	3.55	3.83	4.96	6.11	7.23

**Pressure Rating:** Maximum operating pressure is 150 psi Air

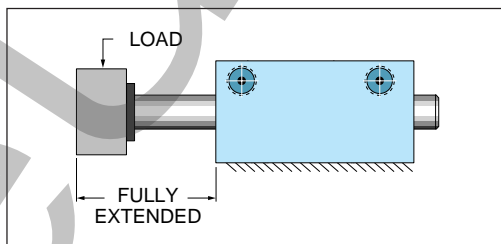
**Output Force:** Output Force = Pressure X Power Factor

**Speed:** Safe speed range is determined by a number of factors. The most important consideration is total reciprocating weight. High loads combined with high speeds can develop severe and damaging impact loads. For speeds over 10 inches per second use extend bumpers (Options "A" or "B").

**Accuracy:** GB Series Slides feature replaceable, high performance, self lubricating Duralon® sleeve bearings and special ground guide shafts. Straightness tolerance is .0015" per foot of guide shaft. Repeatability of extend stroke is .001" with Option "D".

## Load Sizing Guide

### GB Series



**Load Limits:** Safe loading involves a combination of factors including: bearing capacity, shaft strength and allowable deflection, life expectancy, how the load is applied, and how fast the load is accelerated/decelerated.

**DO NOT OVERLOAD** – Overloading can cause reduced product life, shaft bending and loss of position accuracy, as well as seal and bearing failure. **CAUTION:** Heavy reciprocating loads can cause damaging impact forces at end of stroke. It may be necessary to use stop collars and/or bumpers, or reduce speeds to avoid damage to slide and/or tooling.

Model Number	SAFE LOADS (lbs.)						Maximum Deflection
	Stroke (inches)						
	1/2	1	1-1/2	2	3	4	
GB375	6.0	6.0	6.0	6.0			.005"
	6.0	6.0	6.0	6.0			.015"
GB500		17.0		17.0	17.0	12.0	.005"
		17.0		17.0	17.0	17.0	.015"
GB750		42.0		42.0	42.0	42.0	.005"
		42.0		42.0	42.0	42.0	.015"

# “GB” Series Linear Slides – Order Guide

## Model Number Code

**GB 500 – 2.0 – AET1**

Series      Model Size      Stroke      Options

Helpful hint:  
Model Size = guide shaft diameter in 3 decimal places

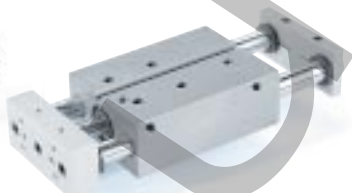
Model Size	Guide Shaft Diameter	Bore	Standard Stroke Lengths
375	3/8"	12mm	1/2, 1, 1-1/2, 2
500	1/2"	20mm	1, 2, 3, 4
750	3/4"	32mm	1, 2, 3, 4

## Options

- V** – Viton seals. Increases operating temperature limit to 325°F
- E** – Magnetic piston for position sensing  
*Order magnetic sensors separately.*
- T1** – “Blank” toolbar (no mounting holes)
- A** – Pair of clamp collars with urethane bumpers for extend adjustable stop (Bumpers may be removed if not desired)



Option “A”



Option “B”

- B** – Rear clampbar with urethane bumpers for alternate extend adjustable stop (instead of collars). Rear clampbar is also used to actuate optional extend proximity switch. (Bumpers may be removed if not desired)

- C** – Tapped guide shafts at rear



Option “C”



Option “D”

- D** – Rear stopbar, stop bolt and stop plate for adjustable extend stop (includes Option “C”). Cannot be used with extend prox switch.

- F** – Rear toolbar; same as front toolbar with matching hole pattern (will be blank if “T1” specified; includes Option “C”). Cannot be used with extend prox switch.

## Magnetic Position Sensing

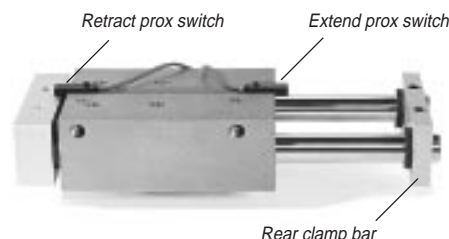
Order slide with Option “E” magnetic piston.  
Order dovetail style sensors separately.



## Proximity Switches

Order slide with Option “B” rear clamp bar for use with extend prox switch

Order prox switches separately.



## Magnetically Actuated Sensors – Use with Option “E”

### Low Profile, Dovetail Style Sensors...

- Magnetic piston Option “E” is required.
- Slide the sensor dovetail into the mating dovetail slot on the top face of the bearing block. Position the sensor as desired and lock it in place by tightening a hex socket screw.



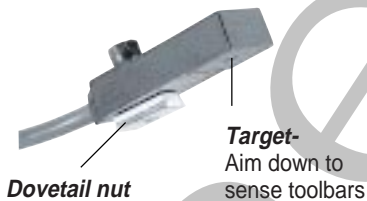
slot on the top face of the bearing block. Position the sensor as desired and lock it in place by tightening a hex socket screw.



- Order sensors separately from table below.

Dovetail Style Sensors – Requires Option –E: Magnetic Piston					Female Cordsets for Quick Disconnect	
Sensor Type	Prewired 9 ft. Part No.	Quick Disconnect Part No.*	LED	Electrical Characteristics		
Reed	949-000-001	949-000-301	No	0-120 VDC/VAC, 0.5 Amp Max current, 10 Watt Max, 0 Voltage Drop		
Reed	949-000-002	949-000-302	Yes	5-120 VDC/VAC, 0.03 Amp Max current, 4 Watt Max, 2.0 Voltage Drop		
Electronic	949-000-031	949-000-331	Yes	Sourcing PNP 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop		
Electronic	949-000-032	949-000-332	Yes	Sinking NPN 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop		
Note*: Quick disconnect styles are supplied with 6 inch pigtail with male connector.						
					Length	Part No.
					1 Meter	CFC-1M
					2 Meters	CFC-2M
					5 Meters	CFC-5M

## “True” Proximity Switches – NOT Magnetically Actuated

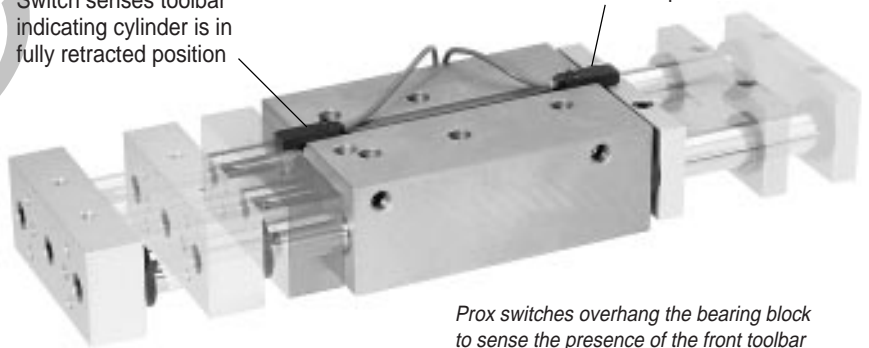


### Prox switches sense the presence of toolbars and clampbars...

- Orient the prox switch target-side down.
- The sensor mounting slot is a combination of a "flat" slot for the prox body and a "dovetail" slot for the dovetail nut.
- Slide the dovetail nut into the mating dovetail slot on bearing block. Prox switch will rest in the "flat."
- Allow the prox switch target to overhang the bearing block.
- Tighten the socket head cap screw to lock switch in position.
- Order prox switches separately from chart at the right.

Switch senses toolbar indicating cylinder is in fully retracted position

Switch senses rear clampbar indicating cylinder is in fully extended position



Prox switches overhang the bearing block to sense the presence of the front toolbar and optional rear clampbar (Option "B")

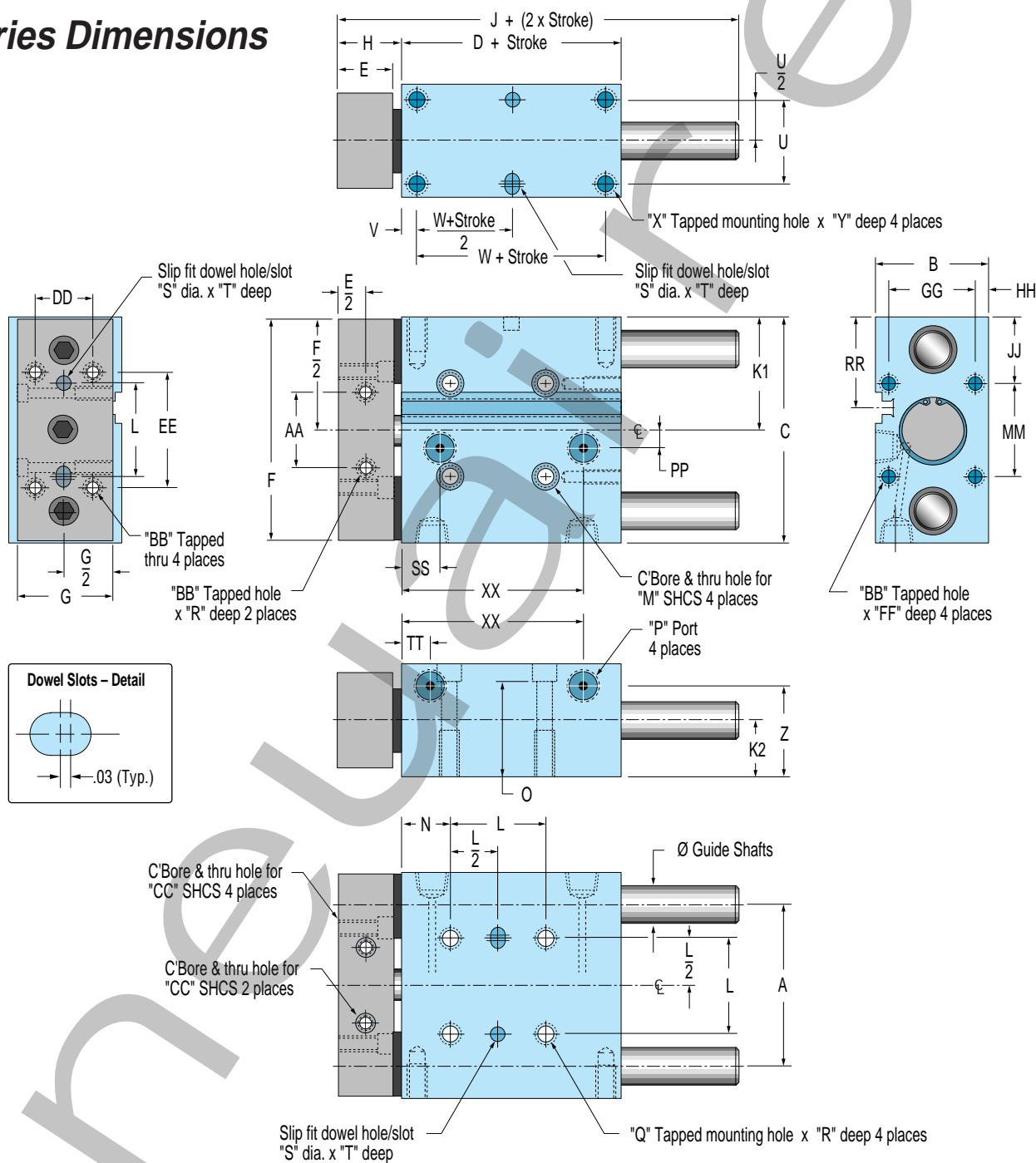
### Proximity Switches –

Package includes proximity switch (available pre-wired 2 meters long only), socket head cap screw and dovetail mounting nut.

Part No.	Electrical Description
GBP-PNP	24 VDC, 3-wire w/LED (PNP) Sourcing
GBP-NPN	24 VDC, 3-wire w/LED (NPN) Sinking

# "GB" Series Linear Slides

## "GB" Series Dimensions



"XX" Dimension (varies with stroke)						
Stroke	1/2	1	1-1/2	2	3	4
Model 375	1.25	1.88	2.38	2.88	-	-
Model 500	-	2.38	-	3.38	4.38	5.38
Model 750	-	2.13	-	3.13	4.13	5.13

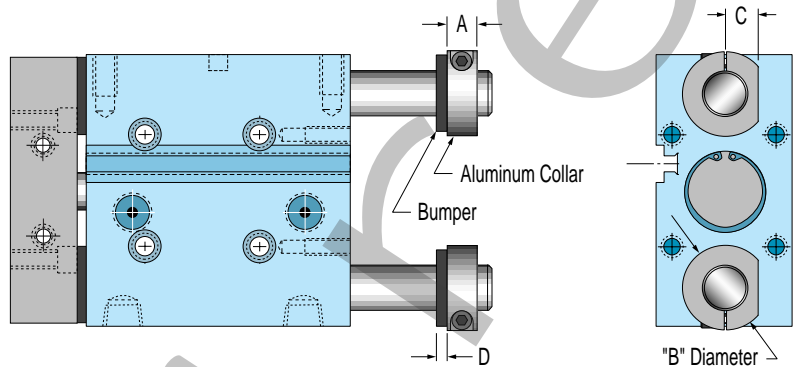
### Slide Dimensions

Model	Bore mm	Bore Inch	Ø Guide Shaft Dia	A	B	C	D	E	F	G	H	J	K1	K2	L	M	N	O	P	Q	R	S	T
375	12	0.47	3/8	1.625	1.00	2.25	1.38	.50	2.19	.812	.56	2.44	1.125	.500	.875	#6	.56	.79	10-32	10-24	.50	1/8	.12
500	20	0.78	1/2	2.125	1.50	3.00	1.88	.75	2.94	1.250	.88	3.31	1.500	.750	1.250	#10	.63	1.20	1/8 NPT	1/4-20	.63	3/16	.18
750	32	1.26	3/4	2.875	2.00	4.00	2.13	1.00	3.94	1.750	1.19	4.06	2.000	1.000	1.688	1/4	.81	1.74	1/8 NPT	5/16-18	.88	1/4	.25

# Slide and Options Dimensions

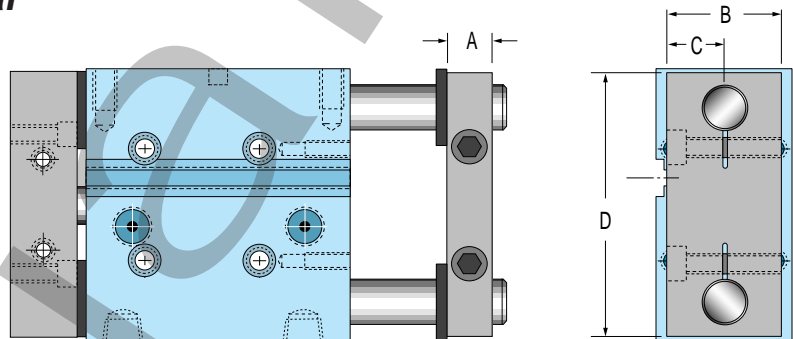
## Option "A" Stop Collars

Model	A	B	C	D
375	.34	.88	.31	.06
500	.41	1.13	.44	.13
750	.50	1.50	.56	.19



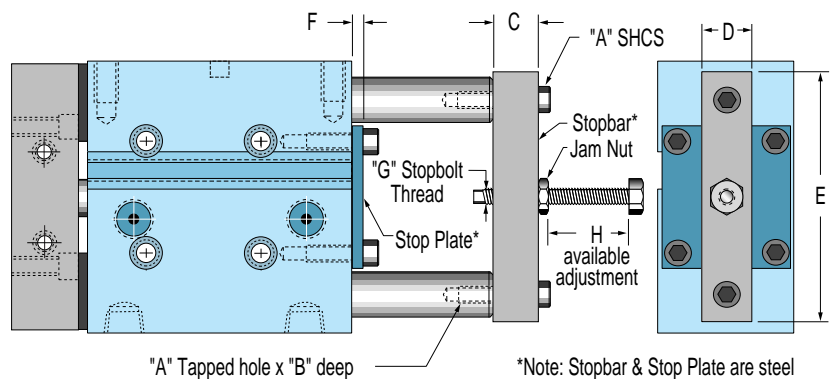
## Option "B" Rear Clampbar

Model	A	B	C	D
375	.38	.75	.41	2.19
500	.50	1.25	.63	2.94
750	.50	1.75	.88	3.94



## Option "C" Tapped Guide Shafts at Rear Option "D" Rear Stopbar, Stopbolt & Stop Plate

Model	A	B	C	D	E	F	G	H
375	8-32	.38	.25	.50	2.13	.13	10-24	1.25
500	10-32	.50	.31	.63	2.75	.13	1/4-20	1.59
750	5/16-24	.63	.38	.88	3.75	.13	5/16-18	1.31



Model	Bore mm	Bore Inch	Ø Guide Shaft Dia	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	JJ	MM	PP	RR	SS	TT
375	12	0.47	3/8	.750	.19	1.000	8-32	.38	.85	.625	6-32	#4	.500	1.000	.25	.625	.19	.69	.875	.25	1.00	.37	.37
500	20	0.78	1/2	1.125	.19	1.500	10-24	.44	1.22	1.000	10-24	#6	.750	1.500	.50	1.125	.19	.88	1.250	.22	1.21	.50	.38
750	32	1.26	3/4	1.500	.25	1.625	1/4-20	.50	1.69	1.375	1/4-20	#10	1.000	2.000	.50	1.000	.50	1.16	1.688	.50	1.77	.50	.50