

Dowel Surface 3

Optional Dowel Hole/Slot

Code -D

Optional slip fit dowel holes and slip fit dowel slots allow for repeatably precise slide mounting and/or attachment of end tooling. Option may be specified at any of the five surface locations (1-4,6) listed here.

- #1 MH1/MH2 end cap mounting surface (bottom mounting surface)
- #2 Toolbar face
- #3 Toolbar top
- #4 MV1/MV2 end cap mounting surface (side mounting surface)
- #6 MF1/MF2/MF3 end cap mounting surface (flange face)

Cylinder Endcaps

Clear anodized aluminum with precision machined mounting surface

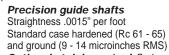
Choice of endcap mounting styles

Code – MH1: Thru- hole mounting (shown) Code – MH2: Bottom tapped mounting hole

Code – MV1/MV2: Side tapped hole mounting

Code – MF1/MF2/MF3: Flange mount styles

Unique design – Integral air cylinder with end caps that serve as rugged housings for the linear ball bearings. Cylinder stroke is nominal +.015" / -.000" with ± .001" repeatability.



and ground (9 - 14 microinches RMS)

Optional stainless steel Code – Z

Dowel Surface 2

Front Toolbar

Clear anodized aluminum, machined top & front for squareness. Tapped mounting holes (top & front) are standard. Optional slip fit dowel holes and slip fit dowel slots assure repeatably precise tooling attachments.

Code – T1: Optional blank toolbar (no mtg holes)
Codes –T3 or T4: Optional toolbars for joining dissimilar slides
together. SE and EZ Series can be combined for 2-axis motion.

Precision linear ball bearings
Standard sealed ball bearings with full steel bearing shell.
Optional sleeve-type, linear bearings
Code – X: Duralon®; Code –W: Rulon®

Stainless steel piston rod – End of piston rod is piloted into the back of the toolbar by a precision machined counterbore. A socket head cap screw completes attachment to the toolbar. This design eliminates piston rod side loads, increasing cylinder seal life and improving performance.

Engineering Data

Model	EZ250	EZ375	EZ500	EZ625	EZ750	EZ1000	EZ1500
Guide Shaft Diameter	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1-1/2"
Bore	1/2"	3/4"	1-1/8"	1-1/8"	2"	2-1/2"	3-1/4"
Power Factor Extend	.20	.44	.99	.99	3.14	4.90	8.27
Power Factor Retract	.17	.39	.88	.88	2.84	4.47	7.51
Weight, lbs. @ zero stroke	.46	1.10	2.40	3.35	8.31	19.10	53.30
Weight per inch of stroke	.06	.18	.32	.44	.74	1.19	2.60
Standard Strokes	1/2" thru 4"	1" thru 6"	1" thru 10"	1" thru 10"	1"- 6" by 1"	1"- 6" by 1"	2" thru 30"
	by 1/2" incr.	by 1" incr.	by 1" incr.	by 1" incr.	8"-18" by 2"	8"-20" by 2"	by 2" incr.

Max Operating Pressure: 150 psi

Output Force: Output Force in Pounds = Pressure x Power Factor

Speed: Speeds up to 24 inches per second are obtainable by utilizing an optional stop package in conjunction with urethane bumpers or hydraulic shocks. Moderate reciprocating loads can be safely cycled up to 12 inches per second by utilizing an adjustable stop option without bumpers or shocks. Except for light loads and moderate speeds, operating EZ slides without an adjustable stop option is **not** recommended. Moderate to heavy loads should **not** be stopped by bottoming the piston against the end cap.

Important note: Most linear slide failures are caused by severe, damaging impact loads (which act like a "slide hammer" on the piston rod). Proper slide model sizing, use of adjustable stops and/or shocks/bumpers, and operating the slide at the lowest possible air pressure will insure successful operation and long product life.

Accuracy: EZ Series slides feature linear ball bearings for near play free operation. Each bearing has .0005" max "play" or less. The built-in air cylinder will stroke +.015" / -.000" of nominal stroke. Stroke repeatability is ±.001". Guide shaft straightness tolerance is .0015" per foot of shaft.

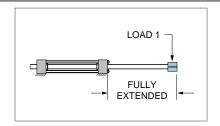
Bearings in the "EZ" series slides are housed in the cylinder end caps. As the stroke increases, the pairs of bearings become spaced further apart, increasing bearing load capacity. Note: when comparing "EZ" charted Load #1 capacities to "SE" model/ stroke equivalents, ratings are identical because the limiting factor is the strength of the guideshaft to resist bending, not the linear ball bearing capacity. When sleeve type bearings (code "X" or "W") are specified, the "EZ's" additional bearing separation can be a significant factor in improving bearing life and reducing toolbar "play" in Load #1 applications.

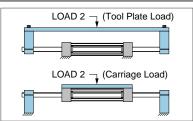




Ideal for high precision, high load carrying capacity applications

Load Sizing Guide





LOAD 3 (Tool Plate Load)

LOAD 3 (Carriage Load)

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 positional accuracy, as well as bearing and seal failure. CAUTION: Heavy reciprocating loads can create damaging impact forces at end of stroke. It may be necessary to use adjustable stops, bumpers, or hydraulic shock absorbers – or reduce speeds.

Center support can be added to EZ500 and larger slides. Center support dramatically reduces deflection and increases load capacity on long stroke applications.

	r					SA	FΕ	L	ОА	D S	(I)	bs.)					
	Load							,	Stroke	e				,			Maximum
Model	Туре	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	12"	14"	16"	18"	20"	Deflection
EZ250	Load 1	4.0	2.4	1.8	1.3												.005"
		17	10	4.0	2.5												.015"
1	Load 2	40	24	8.0	4.0	'											.005"
	<u> </u>	48	44	38	19		/										.015"
EZ375	Load 1	28	28	12	6.0	4.0	2.8										.005"
1	1 10	28	28	28	18	12	6.8										.015"
ı	Load 2	60	36	14	8.6	3.6	2.0	ſ									.005"
	1	79	79	60	33	18	13	10	20	10	1.4	<u> </u>	 		<u> </u>	ļ	.015"
EZ500	Load 1	84	44	24	12	8.0	6.0	4.0	3.0	1.8	1.4						.005"
,	'	120	120	60	36	24	16	12	8.2	6.0	4.8						.015"
	Load 2	120 136	120 72	110	70	50	32	22	8.0	7.0	9.6 5.4						.030"
,	Load 2	290	210	120	84	60	44	29	24	20	15						.005"
i		290	290	220	160	116	80	64	48	37	28						
i	Load 3	290	290	264	144	126	84	72	56	49	36						.030"
=====	Load 3	150	84	44	28	16	12	9.0	7.8	5.6	4.0		-	+	-	-	.005"
EZ625	Luau	150	150	124	76	56	34	26	20	16	11						.005
i	'	150	150	150	140	88	60	56	38	29	22						.030"
ı	Load 2	240	140	84	60	40	36	22	17	12	10						.030"
1	LUGU Z	420	420	250	160	120	84	60	56	34	30						.015"
1		420	420	420	310	220	170	120	96	70	60						.030"
1	Load 3	420	420	420	420	245	184	115	100	72	64						.005"
EZ750	Load 1	,	100	177	56		20		12	·-	8.0	5.0	4.0	2.2	1.8		.005"
EZ/30	Loui.	['	280		114	1	56		36		26	12	9.0	6.4	5.8		.015"
ı	'	['	280		200		96		60		40	30	19	12.2	12		.030"
,	Load 2		180		64		42		36		15	12	8.0	7.0	6.0		.005"
ı			450		190		110		80		44	24	17	14	12		.015"
ı			480		360		200		140		76	50	35	26	24		.030"
ı	Load 3		480		480		380		200		136	76	60	42	34		.005"
EZ1000	Load 1	,	200		80		44		36		24	12	8.0	6.0	5.0	4.0	.005"
1	la '	1 '	470	['	220	'	120	1 '	80		50	36	24	17	13	12	.015"
ı		l'	470	l'	470	l'	220	!	130	l	96	60	46	38	32	30	.030"
ı	Load 2		240		110		80		66		50	42	38	32	30	24	.005"
ı			600		320		210		156		100	90	76	50	40	36	.015"
			600		600		400		280		200	150	124	100	80	70	.030"
	Load 3		600		600		540		430	Γ	320	210	156	90	84	70	.005"
	,								Stroke								
	1 . 1	<u></u>		'	4"	<u> </u>	6"	 '	12"	<u> </u>		18"	<u> </u>	24"	<u> </u>	30"	
EZ1500	Load 1	1		,	600	'	510	1	124			76		50		10	.005"
	1 '	1		,	800	'	600	1 '	300			124		70		30	.015"
,					800		800	 '	550			202		104		40	.030"
	Load 2				825		800		434			275		195		60	.005"
					920		920		750			480		335		90	.015"
	110				920		920		920			590		410		115	.030"
ļ	Load 3				920	<u> </u>	920	<u> </u>	850			450		250		85	.005"
									_	_		_		_			

Single Overhead Support Beam— On stroke lengths longer than ten times the guide shaft diameter (Example: EZ625 is $.625 \times 10 = 6-1/4$ " stroke), a single beam increases "Load 1" by a factor of 1.9 to 1.

Twin Overhead Support Beam— On stroke lengths longer than ten times the guide shaft diameter (Example: EZ1000 is $1 \times 10 = 10$ " stroke), a twin beam increases "Load 1" by a factor of 2.7 to 1.





"EZ" Series Linear Slides - Order Guide

Step 1 Select a slide model size, stroke length, endcap mounting style, plus any optional toolbar, mounting bar (B1) or integral option (such as Viton seals, etc.). Helpful hint: The model size = guide shaft diameter in 3 decimal places.

Step 1: Basic Slide Model

EZ 750 - 5.0 Series Model Size Stroke OPTIONAL TANDEM CYLINDER STROKE

Model Size	Guide Shaft Diameter	Bore	Standard Stroke Length					
250	1/4"	1/2"	1/2"	to 4"	by	1/2"	increments	
375	3/8"	3/4"	1"	to 6"	by	1"	increments	
500	1/2"	1-1/8"	1"	to 10"	by	1"	increments	
625	5/8"	1-1/8"	1"	to 10"	by	1"	increments	
750	0/4"	2"	1"	to 6"	by	1"	increments	
750	3/4"		8"	to 18"	by	2"	increments	
1000	1"	2-1/2"	1"	to 6"	by	1"	increments	
1000	ı	2-1/2	8"	to 20"	by	2"	increments	
1500	1-1/2"	3-1/4"	2"	to 30"	by	2"	increments	

3-Position Tandem Cylinder Slides

(Not available on SE250)

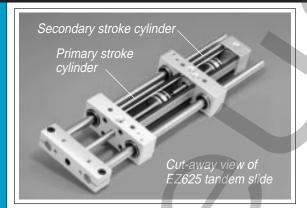
Note: See pages 34 & 35 for principle of operation

Ordering example:

EZ750 - 5.0 - 2.0 - MH2 - S03B - RC01CB

Primary Cylinder Stroke

Secondary Cylinder Stroke



Sensor locations— use "M" in the Box (□) if mid-position sensor is required (3 sensors). Note: "M" (mid-position) is **not** available with "S50, S51, S60" sensors. All sensors are located on the primary cylinder, which also contains the magnetic piston band for "E" & "J" options. Mid-position "M" prox sensor is **not** available on "EZ375" models with "S01" through "S47" prox options (consider using "E" style sensors if mid-position sensing is required).

Port Locations: Top ports are standard on all tandem models. A top and bottom port combination is available for the EZ500 and EZ625 as a "special" order at no additional charge. Consult factory.

Optional "B1" Mounting Bars

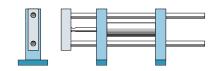
For use with MV1 or MV2 Mounting style

To Order with Slide:

Add "B1" to mounting style

Example:

EZ500 - 5.0 - MV1B1



Floating Rear Bearing Block Option (NOT available on EZ250)

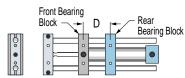
Puts maximum stroke within shortest possible envelope.

To order:

add "FRBB" after end cap mounting style and specify dimension "D". Ordering example: EZ500 – 5.0 – MH2 – FRBB (D3.5)

Options available:

Sensing options are limited to magnetically operated "E" & "J" Options. Tooling, Stop, and Shock options are *NOT* available.



Rear floating bearing block can be positioned anywhere along the cylinder tube. See details on page 53.





Building the Model Number in 3 Easy Steps

Step 2 Please turn the page

Model Number Will End Here If No Options Are Desired

Mounting Style & Toolbars

Leave Blank If No Integral Options Are Desired

Integral Options

Continue on to step 2 if you want to add Sensing Options.

Endcap Mounting Styles

• •

MH1

Thru Mta Holes



Tapped Mtg Holes



Front Flange Mtg



Rear Flange Mtg

MF3

Front & Rear Flange Mtg

MV1

Side Tapped Mtg Holes



Side Tapped w/Ports on Opp. Side





Dowel Hole/Slot Code & Location(s) Available on any of the 5 mounting surfaces shown in blue on page 44. Example: D13 specifies dowel hole/slot on bottom surface of bearing blocks and on top surface of toolbar.

H-Hydraulic Cylinder Seals (150 psi max.)

V- Viton Cylinder Seals

Bearing Options

Sleeve Bearings can be substituted for standard linear ball bearings.

W-Rulon® Shaft Bearings

X- Duralon® Shaft Bearings

Guide Shaft Options

Y - Hollow Guide Shafts Case hardened & ground #52100 tubular steel available on EZ750 Models and larger.

Z – Stainless Steel Guide Shafts: shaft material compatible with bearing type will be provided.

Bearing Type **Shaft Material**

Std. linear ball brgs. Option "W" Rulon® sleeve Option "X" Duralon® sleeve 440C hardened & ground SS Hard chrome plated SS Hard chrome plated SS

Toolbar Configurations

Optional toolbars, including blanks (with no holes), may be substituted for standard toolbars at no additional cost.

All like models of EZ Series Slides (except EZ375 & EZ500) can be joined together for two-axis motion using standard toolbars. Toolbars with special mounting holes for joining dissimilar models are shown in the table at right. (Also see note 1)

"EZ" Series Slides are also easily combined with the "SE" Series Slides. All EZ Series Slides except EZ250 share identical tooling mounting bars with their SF Series cousins

Toolbar Option Codes

- T1 = Blank Toolbar (no mounting holes).

For joining dissimilar models, specify one of the horizontal toolbars listed below:

- **T2** for EZ375 EZ375 - T3 for EZ500 EZ500 or SE500

EZ500, SE500, EZ750, or SE750 **- T4** for EZ1000

Note 1 – Using an "EZ" slide for the vertical motion is recommended only for light loads, short vertical strokes or slow horizontal speeds. For more severe applications, a special base plate should be attached to the endcaps of the vertical motion "EZ" slide. One end of this plate is "sandwiched" between face of horizontal motion's toolbar and the front endcap of the vertical motion "EZ" slide. Rear endcap is attached to plate's opposite end.

To order: Add "Option Code" to Mounting Style.

Example: EZ1000 - 10.0 - MH2T4





"EZ" Series Linear Slides - Order Guide

Step 2

3-way air pilot switches, magnetically operated electronic sensors and reed switches. Available complete with sensors – or mounting brackets only if you are furnishing the sensors.

Step 2: Sensing Options Model Number Ends Here If No Other Options Desired

SO3B (4 Digits)

Snap Action Mechanical Switches Prewired style housing "S50" Switch actuator Conduit fitting style housing "S51"



Codes S45. S46 and S47 are available on EZ500 & EZ625 models only. This is an alternative prox bracket location to accommodate the extra length of the quick disconnect cordset. See page 56 for details.

Note 3:

Not available on EZ250 or EZ375

Not available on EZ500 with MV1 or MV1B1 mounting styles Not available on EZ625 with MV1B1 mounting style

Sensor Codes (Use "S000" if NO Sensors are desired)

Select a code for sensor type and indicate position

E = Extend position only

R = Retract position only **B** = Both extend & retract positions

M = 3 sensors (See note 1)

Example: SO3 B • Sensors beginning with the letter "S" (Prox, Snap Action, Air Pilot) are actuated by "dogs" clamped to the guideshafts. • Sensors beginning with the letter "J" or "E" (Electronic sensors and reed switches) are actuated by a magnetic band on the piston. Note 1: Mid position "M" not available on EZ250 or EZ375 with prox options. "M" not available on any model with \$50, \$51, or \$60.

Proximity Switch w/Brackets & Actuators

Prewired w/	Quick Disconnect	Quick Disconnect	Thread	Floatrical Charactaristics			
6' Leadwire	w/2 M cord set	without cord set	Size	Electrical Characteristics			
S01 🔲	S02 🔲	S12 🗆	12mm	110v AC, 2-wire, w/LED			
S03 🔲	S04 🔲	S14	12mm	24v DC, 2-wire, w/LED (NPN/PNP)			
S05 🔲	S06 🔲	S16	12mm	24v DC, 3-wire, w/LED (PNP) Sourcing			
S07 🔼		S18 🔲	12mm	24v DC, 3-wire, w/LED (NPN) Sinking			
Proximity Switch Brackets & Actuators Only							
S40 🔲	S45 S	ee note 2	12mm	Customer supplies the switches			

		7		_
3#Z <u></u>	347	Oce Hote 2	JIIIII	Customer supplies the switches
040	C17 -	See note 2	Emm	Customer aunalise the quitches
S41 🔲	S46	See note 2	8mm	Customer supplies the switches
	070		12111111	Customer supplies the switches

Snap Action Mechanical Switches

Ì	Prewired w/ 6' Leadwire	Conduit Fitting Style Housing	Electrical Characteristics
	S50 N	S51 🔲	SPDT 10 amp. capacity (See note 3)

Air Pilot Switch

Miniature 3-way air valve (See note 3)

Magnetic Piston & Clamp-On Sensors ("J")

Single sensor –1" stroke min; Dual sensors –2" stroke min. Not available on EZ250.

9 Ft. Prewired	Quick Disconnect w/5M cord set	Sensor Type	LED	Electrical Characteristics
J70 🔲	J71 🔲	Reed	Yes	5-120 VDC/VAC, 0.5 Amp Max, 10 Watt Max, SPST N.O., 3.5 Voltage Drop
J72 🔲	J73 🔲	Electronic	Yes	Sourcing PNP 6-24 VDC, 0.50 Amp Max, 1.0 Voltage Drop
J74 🔲	J75 🔲	Electronic	Yes	Sinking NPN 6-24 VDC, 0.50 Amp Max, 1.0 Voltage Drop

Magnetic Piston & Dovetail Style Sensors ("E")

For 1" Stroke & longer on all bores; Reed sensors not available on EZ250 or EZ375

9 Ft. Prewired	Quick Disconnect w/5M cord set	Sensor Type	LED	Electrical Characteristics			
E70	E71 🔲	Reed	Yes	5-120 VDC/VAC, 0.03 Amp Max, 4 Watt Max, 2.0 Voltage Drop			
E72 🔲	E73 🔲	Electronic	Yes	Sourcing PNP 6-24 VDC, 0.20 Amp Max, 0.5 Voltage Drop			
E74	E75 🔲	Electronic	Yes	Sinking NPN 6-24 VDC, 0.20 Amp Max, 0.5 Voltage Drop			
E76 🔲	E77 🔲	Reed	No	0-120 VDC/VAC, 0.5 Amp Max, 10 Watt Max, 0 Voltage Drop			

Magnetic Piston

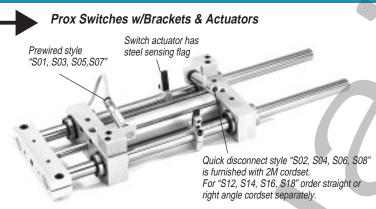
Customer supplies the sensors and mounting clamps J800 Includes Dovetail Mounting Rail; customer supplies the sensors





Building the Model Number in 3 Easy Steps

Continue on to step 3 if you want to add Tooling, Stop, or Shock Options.



Female Cordsets w/2 Meter Leadwire for 12mm Proximity Switches							
Option Code	Straight Cordset P/N	Rt. Angle Cordset P/N					
S12	PCS01-2M	PCS02-2M					
S14	PCS03-2M	PCS04-2M					
S16	PCS05-2M	PCS06-2M					
S18	PCS05-2M	PCS06-2M					



4 meter and 6 meter cord sets are also available. Consult factory.









"EZ" Series Linear Slides - Order Guide Continued

Step 3

Select a tooling option to adapt the slide to the application. Is stroke adjustability required? Select from four adjustable stop options. Are hydraulic shock absorbers needed? Standard mounting brackets are available for both Ace and Enidine. You can order complete shock assemblies – or brackets only if you are furnishing the shocks.

Step 3:Tooling, Stop, & Sho		e a valid model number all (6) tion must be filled in with a ch	
	(Tooling Option)	(Stop Op	
Select a Tooling O	ption	Stop Options	Shock Options
	Code – RC Rear Clampbar	01 U1 02	A B C
Note: Specifying "T1" blank toolbar in "Step 1" also designates a blank rear toolbar (– RT)	Code – RT Rear Toolbar	01 U1	Extend shocks not available AR BR CR
	Code – BL Tall <u>Bl</u> ocks	01 U1 02 03	A B C D E F
CS is <i>NOT</i> Available on EZ250 or EZ375 S type sensors not available on EZ500/625/750	Code – CS w/center support	01 U1 02 03	A B C D E F
	Code – PL Tool <u>pl</u> ate	01 U1 02 03	A B C D E F
PS is <i>NOT</i> Available on EZ250 or EZ375 S type sensors not available on EZ500/625/750	Code – PS Toolplate & Ctr. Support	01 U1 02 03	A B C D E F
Standard Material is Aluminum* TB is Available on EZ625 and larger models	Code – TB Twin Beam *1018 CRS available at no additional cost	01 U1 02	A B C
Standard Material is Aluminum* SB is Available on EZ625 and larger models. Not available with MF1, MF2, or MF3 endcaps	Code – SB Single Beam *1018 CRS available at no additional cost	01 U1 02	A B C
"B2" mounting blocks "B2" mounting bars VB is only available with MH1 or MH2 endcaps	Code – VB Vertical Shaft Mtg. Blocks – VBB2 w/mounting bars	03	D E F



Completing Step 3 of the Model Number

General shock notes: 1) Shocks not available on EZ250 model.

- 2) Shocks not available on EZ375-MF3
- 3) 1/2" -20 thread shocks/brackets are used on EZ375, EZ500 & EZ625.
- 4) 1"-12 thread shocks/brackets are used on EZ750, EZ1000 & EZ1500.

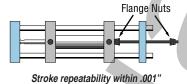
Adjustable Stop Option Details

The *Step 3 chart* on the opposite page indicates what stops are available for each tooling option. A tooling option must be selected before a stop option can be specified.

Code 00 - This code indicates no stops desired.

Code 01 -

Allows complete adjustment over the entire stroke length from full to zero stroke. Threaded rod (with two flange nuts serving as the stops) is fastened to cylinder endcap and passes thru a clearance hole in rear tooling.



Urethane Washers

Code U1 -

Reduces noise and provides an impact absorbing stop cushion. It is the same stop as Type "01" with a urethane washer slipped onto the threaded rod against the flange nut.

Code 02 -

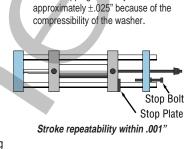
Is a modification of Type "01" where a stop bolt is added for the extend stop. It positions both extend and retract adjustments next to each other at the back of the slide.

Provides easier, more accessible adjustment in cases where a tooling option would cover the extend flange nut in a Type "01" stop.

Code 03 –

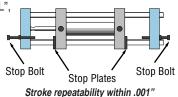
Can only be used with "BL", "CS", "PL", "PS", or "VB" tooling options.

Uses stop bolts at each end. On applications where the front & rear tall blocks are fixed and the cylinder is a reciprocating carriage, this "03" option eliminates the threaded stop rod which otherwise would also be reciprocating and require special guarding.



Advantage: Quiet operation

Note: Stopping accuracy is limited to



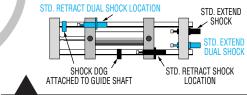
on one repeatability mains to

Shock Option Details

The *Step 3 chart* on the opposite page indicates what shocks are available for each tooling option. • *Indicate shock quantity/location in the box (*[]) *as follows:* **E** = Extend only; **R** = Retract only; **B** = Both ext. & retract. Some shock options do not require a tooling option (EZ375 models, or "retract shock only"). Fill in Tooling/Stop option position with zeros if shocks are desired without tooling options. Example: EZ375-6.0-MH1-S000-0000BB

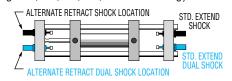
Code NO - Indicates no shocks

Standard Shock Location

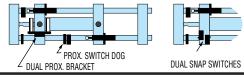


Standard Location	Alternate Location			
A ■ Ace Shoo	ks D 🔲			
B Enidine Shocks E				
C ☐ Brackets & Actuators only F ☐				
(Customer supplies	the shocks)			
Insert E, R or	r B in box			

Alternate Shock Location (Recommended when using "BL, CS, PL, PS, or VB" Tooling)



Note: EZ1500 models with Type "01" stop are available with a Dual Shock Option (2 extend and/or 2 retract shocks). Sensors S01 thru S60, when used with dual shocks are re-located. Both sensors are mounted to the front end cap.



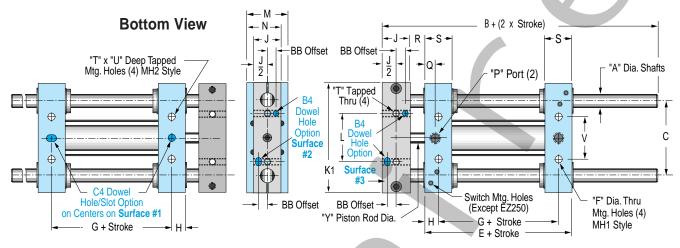
Standard Location	Alternate Location				
AX Ace Shocks	DX				
BX Enidine Shock	<sεχ th="" 🔲<=""></sεχ>				
CX Brackets & Actuators only FX (Customer supplies the shocks)					
Insert E, R or B	in box				

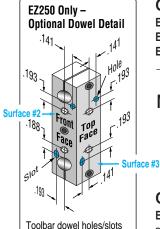




MH Mounting Styles - MH1 (Thru Hole) - MH2 (Tapped Hole)

Top View





are offset outward from

shown here.

Dowel Slots - Detail

tapped mounting holes as

-.03 (Typ.)

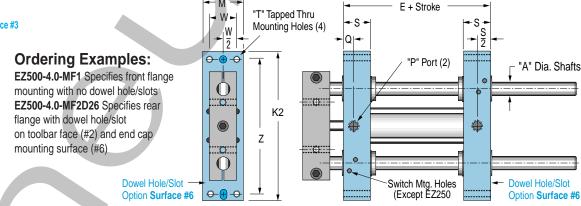
Ordering Examples:

EZ500-4.0-MH1D12 Specifies dowel hole/slots on bottom mounting surface (#1) and toolbar face (#2)

EZ500-4.0-MH1D3 Specifies dowel hole/slot on toolbar top (#3) only

EZ500-4.0-MH2 Specifies tapped hole mounting with no dowel hole/slots

MF Mounting Styles -MF1 (Front Flange) - MF2 (Rear Flange) - MF3 (Front & Rear Flange)



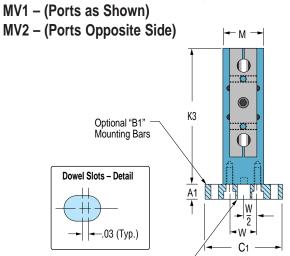
"EZ" Series Dimensional Data

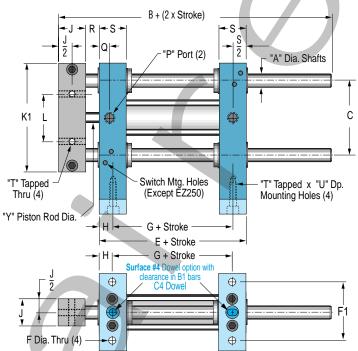
Model	Bore	Α	A1	В	B1	С	C1	D1	D2	Е	E1	F	F1	G	Н	J	K1	K2	K 3	
EZ250	1/2	1/4	.25	3.00	N/A	2.0000	1.75	N/A	N/A	1.25	N/A	.173	1.250	.75	.25	.50	2.75	3.75	3.38	
EZ375	3/4	3/8	.38	4.50	2.25	2.0000	2.25	.968	.688	2.25	2.12	.204	1.750	1.50	.38	.75	3.00	4.12	3.75	
EZ500	1-1/8	1/2	.50	6.12	2.50	2.7500	3.00	1.437	.688	2.75	2.69	.266	2.375	1.75	.50	1.00	4.00	5.50	5.00	
EZ625	1-1/8	5/8	.50	6.12	2.50	3.2500	3.00	1.562	.688	2.75	2.88	.266	2.375	1.75	.50	1.00	4.75	6.25	5.75	
EZ750	2	3/4	.75	8.50	3.38	4.5000	4.50	1.500	1.062	3.62	3.91	.406	3.500	2.38	.62	1.50	6.38	8.38	7.87	
EZ1000	2-1/2	1	1.00	11.69	4.62	5.5000	6.00	2.062	1.062	5.12	5.19	.531	4.500	3.12	1.00	2.00	8.00	11.00	10.00	
EZ1500	3-1/4	1-1/2	1.25	15.25	6.25	7.5000	8.00	3.062	1.187	7.25	6.38	.656	6.000	4.25	1.50	2.50	11.00	14.75	13.50	



Mounting Style Dimensions







EZ500-4.0-MV1 Specifies side tapped mounting

Ordering Examples:

EZ500-4.0-MV2B1D4 Specifies ports opposite side,

base mounting bars, and dowel hole/slot on mounting surface #4

FRBB – Floating Rear Bearing Block

MH1/MH2 Mounting Only



- 1) Not available on EZ250 model
- 2) EZ1000 available with MH2 mounting only

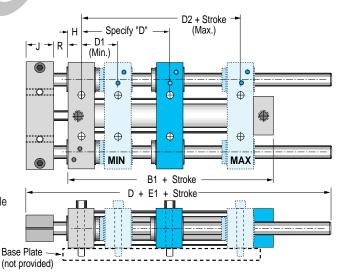
Clearance hole

for dowel option

- 3) Dowel Hole/Slot option in bearing block not available
- 4) Both bearing blocks must be fastened to a common baseplate to form a rigid assembly

Ordering Example:

EZ500-5.0-MH2-FRBB (D3.5)

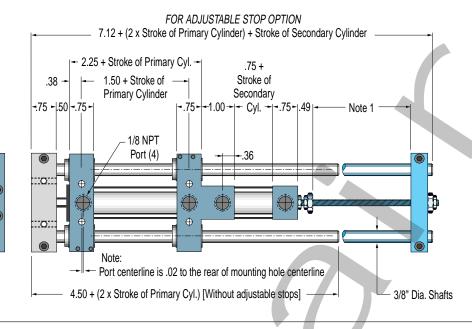


													B4 D	owel Dimensi	ons	C4 Dowel Dime	ensions
L	M	N	P	Q	R	S	Т	U	V	W	Υ	Z	ВВ	Slip Fit for Dowel Size	Depth	Slip Fit for Dowel Size	Depth
1.250	.75	.625	10-32	.25	.38	.50	8-32	.50	1.250	.437	.187	3.437	.141	3/32	.09	1/8	.15
1.000	1.25	1.000	1/8 NPT	.40	.50	.75	10-24	.56	1.125	.875	.250	3.750	.250	1/8	.12	3/16	.18
1.750	1.50	1.250	1/8 NPT	.38	.50	1.00	1/4-20	.75	1.562	1.000	.375	5.000	.313	3/16	.16	1/4	.25
1.750	1.50	1.250	1/8 NPT	.38	.50	1.00	1/4-20	.75	1.750	1.000	.375	5.750	.313	3/16	.16	1/4	.25
2.750	2.50	2.000	1/4 NPT	.50	.75	1.25	3/8-16	1.12	2.750	1.750	.625	7.625	.500	1/4	.25	3/8	.37
3.250	3.00	2.500	1/4 NPT	1.00	.75	2.00	1/2-13	1.50	3.250	2.000	.750	10.000	.688	5/16	.37	3/8	.37
4.250	4.00	3.250	3/8 NPT	1.50	.75	3.00	5/8-11	2.00	4.250	2.750	1.000	13.500	.875	3/8	.43	1/2	.50



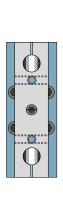
"EZ" Series Linear Slides 3-Position Slides

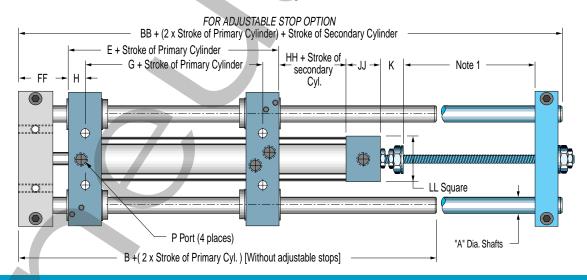
EZ375 Tandem Cylinder Model



Note 1: Same as stroke of primary cylinder (Adjustable stop package allows adjustment of end of stroke positions only - mid-position is fixed)

EZ500, EZ625, EZ750, EZ1000, EZ1500 Tandem Cylinder Models





"EZ" 3-Position Tandem Cylinder Dimensional Data

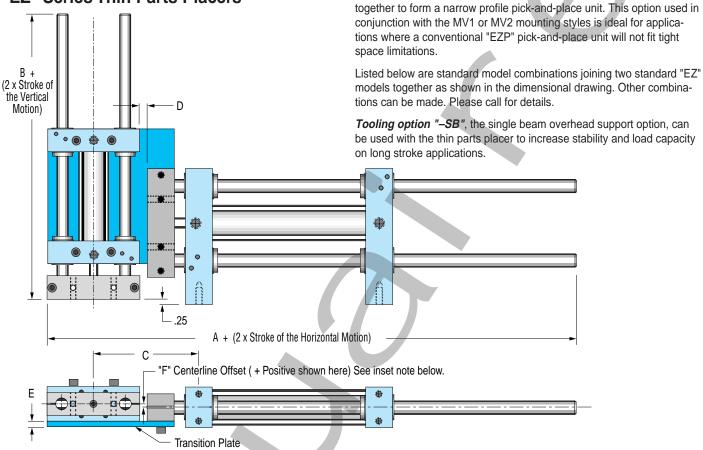
Model	Bore	Α	В	ВВ	Е	FF	G	Н	НН	JJ	K	LL	Р
EZ500	1-1/8	1/2	6.12	7.50	2.75	1.50	1.750	.50	.75	1.00	.75	1.47	1/8 NPT
EZ625	1-1/8	5/8	6.12	7.50	2.75	1.50	1.750	.50	.75	1.00	.75	1.47	1/8 NPT
EZ750	2	3/4	8.50	10.62	3.62	2.25	2.375	.62	1.12	1.00	1.16	2.44	1/4 NPT
EZ1000	2-1/2	1	11.69	14.31	5.12	2.75	3.125	1.00	1.12	1.50	1.56	2.94	1/4 NPT
EZ1500	3-1/4	1-1/2	15.25	18.56	7.25	3.25	4.250	1.50	1.25	2.00	2.06	3.94	3/8 NPT



Two-axis motion where space is limited

The thin parts placer uses a transition plate to join two "EZ" Series slides





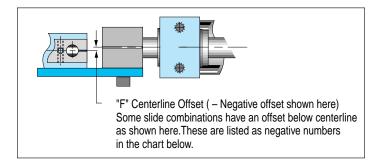
How to Order:

Drawing and chart show transition plates used to join "EZ" Series slides to form a Thin Parts Placer. Order by designating Plate Number for the combination desired, followed by a dash (–) and stroke length of the vertical motion slide.



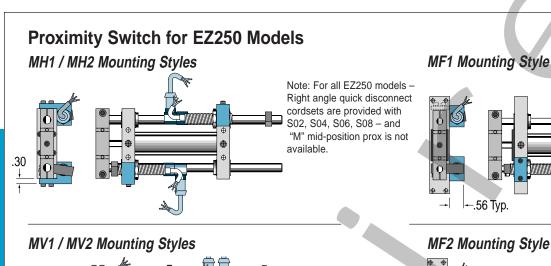
Horiz. Slide Vert. Slide Vertical Slide EZ375 EZ250 Stroke Length

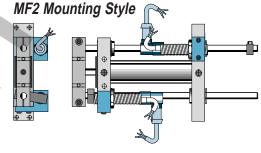
Note: Catalog number is for plate only. Order slides and their accessories separately.

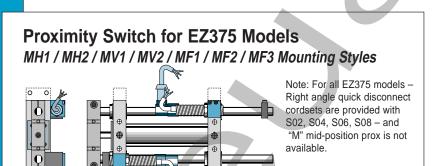


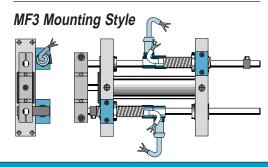
			Trai	nsition F	Plates, N	lodel De	signatio	ns and	Dimensi	ons			
Plate No.	38/25	50/25	50/38	62/25	62/38	62/50	75/38	75/50	75/62	100/50	100/62	100/75	150/75
Horizontal Motion Slide	EZ375	EZ500	EZ500	EZ625	EZ625	EZ625	EZ750	EZ750	EZ750	EZ1000	EZ1000	EZ1000	EZ1500
Vertical Motion Slide	EZ250	EZ250	EZ375	EZ250	EZ375	EZ500	EZ375	EZ500	EZ625	EZ500	EZ625	EZ750	EZ750
А	8.38	10.00	9.90	10.00	9.90	11.21	12.28	13.59	14.21	16.78	17.41	18.85	22.41
В	3.00	3.00	4.50	3.00	4.50	6.12	4.50	6.12	6.12	6.12	6.12	8.50	8.50
С	4.12	4.50	4.28	4.50	4.28	5.09	5.16	5.96	6.21	6.84	7.09	7.71	8.71
D	1.12	1.12	.78	1.12	.78	1.09	.78	1.09	.97	1.09	.97	.78	.78
Е	.25	.25	.25	.25	.38	.38	.50	.50	.50	.50	.50	.75	.75
F	.00	13	.13	13	.13	.25	13	.00	.00	25	25	.25	.00

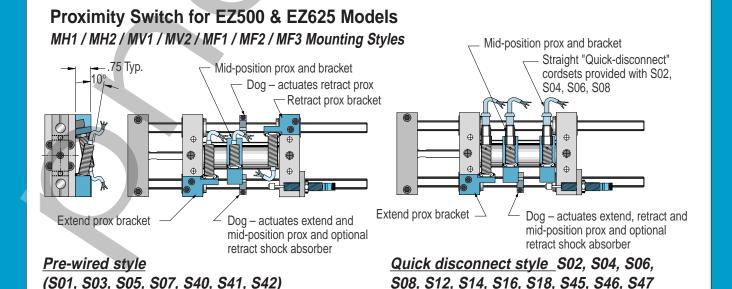












-.75 Typ.



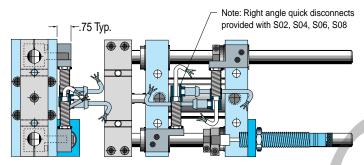
Proximity Switch, Snap Action & Air Pilot Switch Options

Note: Proximity switches shown on these pages are 12mm. Options S01, S03, S05, S07 prewired style are supplied with 6 foot leadwire. Options S02, S04, S06, S08 quick disconnect style are supplied with 2 meter cordsets, in either straight or right angle depending on model size. Options S12, S14, S16, S18 are quick disconnect style without cordsets (order cordsets

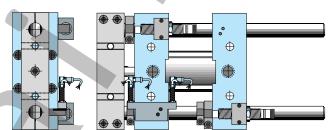
separately from chart on page 49). Options S40, S41, S42 are prox brackets and actuators only (no switches). Options S45, S46, S47 are available on EZ500 and EZ625 models only, and provide brackets and actuators only (no switches) in an alternate location required to accommodate the longer cordsets of quick disconnect style prox switches.

Proximity Switch for EZ750, EZ1000 & EZ1500 Models

MH1 / MH2 / MV1 / MV2 / MF1 / MF2 / MF3 Mounting Styles



Standard prox switch locations for EZ750, EZ1000 and EZ1500

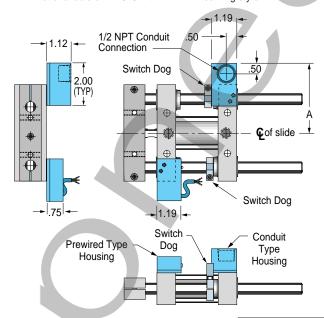


Prox switch locations for EZ1500 when dual shock absorbers are used

Snap Action Mechanical Switch for EZ500, EZ625, EZ750, EZ1000 & EZ1500

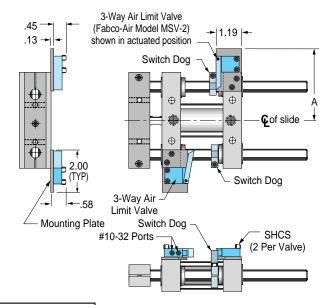
Note: Not available on EZ500 with MV1 mounting style

Not available on EZ625 with MV1B1 mounting style



Air Pilot Switch for EZ500, EZ625, EZ750, EZ1000 & EZ1500

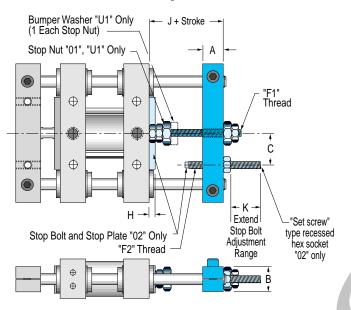
Note: Not available on EZ500 with MV1 mounting style Not available on EZ625 with MV1B1 mounting style



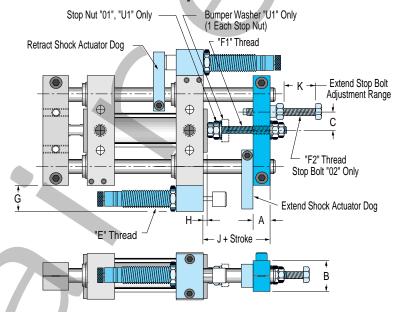
Snap	Action 8	& Air Pilo	ot Switch	n Dimen	sions
Model	EZ500	EZ625	EZ750	EZ1000	EZ1500
Α	3.06	3.31	3.94	4.44	5.50



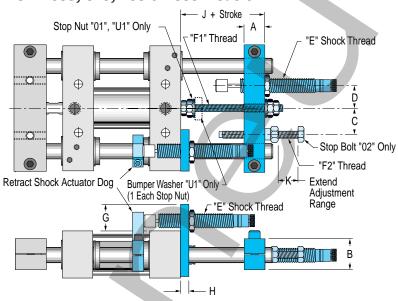
Code "-RC" Rear Clampbar for EZ250 Model



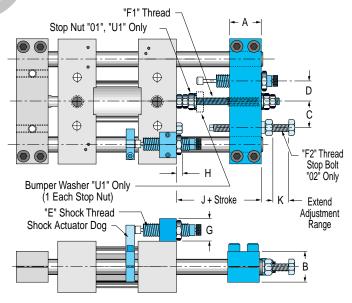
Code "-RC" Rear Clampbar for EZ375 Model



Code "-RC" Rear Clampbar for EZ500, 625, 750 & 1000 Models



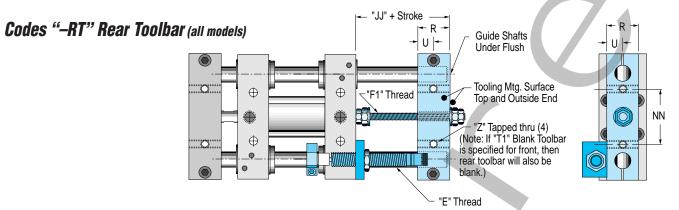
Code "-RC" Rear Clampbar for EZ1500 Model



Model	Α	В	С	D	Е	F1	F2	G	Н	J	JJ	K	L	М	N	NN	
EZ250	.38	.50	.62	N/A	N/A	#10-24	#8-32	N/A	.13	.81	.94	.69	2.94	2.00	.25	1.250	
EZ375	.50	.75	.53	N/A	1/2-20	#10-24	#10-24	.75	.13	.81	1.06	1.25	4.38	3.00	.31	1.000	
EZ500	.62	1.00	.86	.72	1/2-20	1/4-20	1/4-20	.81	.25	1.12	1.94	1.25	5.88	4.00	.38	1.750	
EZ625	.62	1.00	.88	.75	1/2-20	1/4-20	1/4-20	.81	.25	1.12	1.94	1.25	5.88	4.00	.38	1.750	
EZ750	1.25	1.50	1.38	1.14	1.0-12	3/8-16	3/8-16	1.25	.38	2.44	2.69	1.31	8.25	5.00	.50	2.750	
EZ1000	2.00	2.00	1.62	1.41	1.0-12	1/2-13	1/2-13	1.31	.50	3.56	3.88	1.03	11.44	6.00	.75	3.250	
EZ1500	2.50	2.50	2.12	1.88	1.0-12	5/8-18	5/8-11	1.38	.50	4.50	4.81	1.22	15.00	6.00	1.00	4.250	



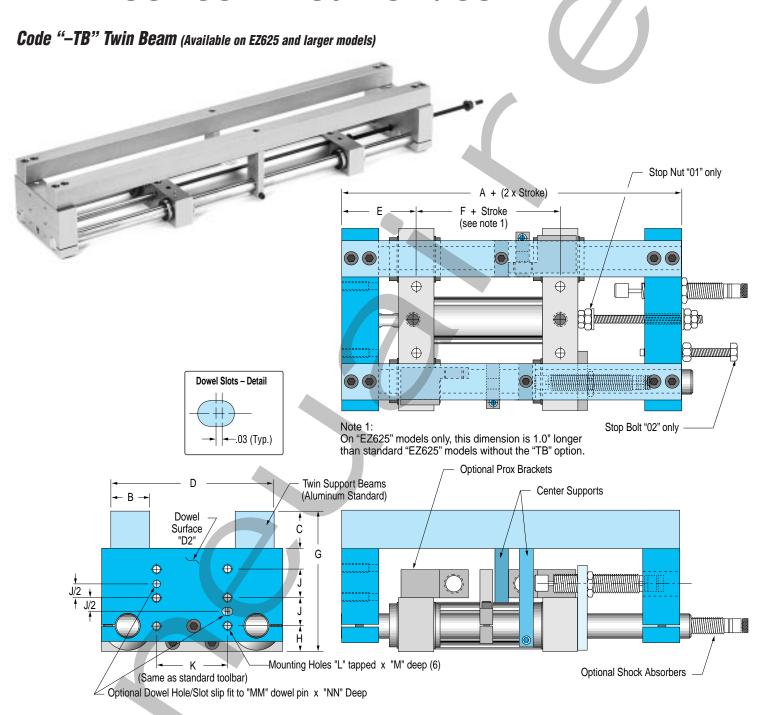
Tooling, Stop and Shock Option Dimensions



Codes "-BL, -CS, -PL & -PS" "BL" Tall Blocks (all models) "CS" Tall Blocks w/Center Support (note 1) L + (2 x Stroke) "PL" Toolplate (all models) T + (2 x Stroke) "PS" Toolplate & Center Support (note 1) "F1" Thread "E" Thread <u>_</u>_Q_ \oplus D D NN 1 ٧ M \oplus Note 1 -Not available on EZ250 'F2" Thread "Z" Thread / SHCS (4) and EZ375 Models Stop Bolt "-02" **-** S only W1 + Stroke Extend "Y" Thread/SHCS (2) (This Dimension Staggered Adjustment on EZ1000 Model only) Ŕange "ZZ" Thread Depth W2 + Stroke Toolplate Center Supports "Tall Blocks" Ν "YY" Thread Depth G 0

0	Р	Q	R	S	Т	U	٧	W1	W2	Х	Υ	YY	Z	ZZ	Model
1.50	1.38	.88	.50	.38	2.50	.25	N/A	N/A	N/A	.75	N/A	N/A	#8-32	.38	EZ250
2.25	2.00	1.25	.75	.50	3.75	.38	N/A	N/A	N/A	1.00	N/A	N/A	#10-24	.50	EZ375
2.75	2.50	1.50	1.00	1.00	4.88	.50	3.25	2.88	2.88	1.25	#8-32	.31	1/4-20	.62	EZ500
2.75	2.50	1.50	1.00	1.00	4.88	.50	3.25	2.88	2.88	1.25	#8-32	.38	1/4-20	.62	EZ625
3.88	3.38	2.25	1.50	1.25	6.88	.75	4.25	4.06	4.06	1.38	1/4-20	.50	3/8-16	.75	EZ750
4.50	4.00	2.75	2.00	2.00	9.44	1.00	5.25	5.05	5.59	1.50	5/16-18	.40	1/2-13	1.25	EZ1000
5.75	5.00	3.25	2.50	2.50	12.50	1.25	4.50	6.88	6.88	1.75	3/8-16	.56	5/8-11	1.75	EZ1500





Model	Α	В	С	D	Е	F	G	Н	J	K	L	М	MM	NN
EZ625	6.87	1.00	1.00	4.25	2.00	2.75	3.75	.75	.750	1.750	1/4-20	.75	3/16	.16
EZ750	8.31	1.00	1.25	6.09	2.88	2.38	5.12	1.25	1.000	2.750	3/8-16	1.00	1/4	.25
EZ1000	11.44	1.25	1.50	7.44	3.75	3.13	6.00	1.50	1.125	3.250	1/2-13	1.50	5/16	.37
EZ1500	15.00	1.50	2.00	10.13	4.75	4.25	7.75	2.00	1.375	4.250	5/8-11	1.50	3/8	.43



Tooling, Stop and Shock Option Dimensions

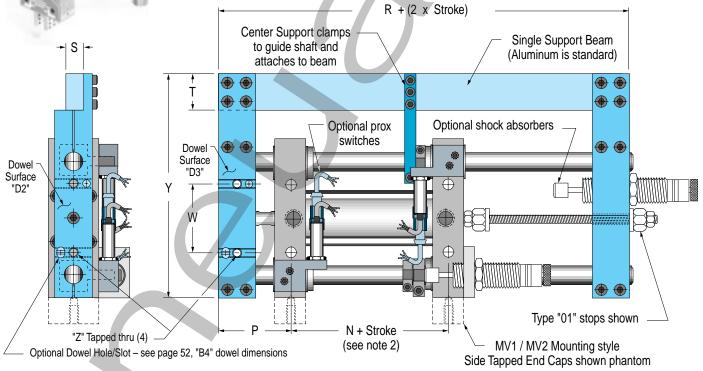
Code "-SB" Single Beam (Available on "EZ625" and larger models)



Here an EZ750 Model with a single beam (shown with MV1 mounting style, "02" adjustable stops, "B1" mounting bars, shock absorbers and proximity switches) is joined by a simple adapter plate to a vertical motion SE Series Slide to form a pick & place device.

An SPG 200, parallel jaw gripper is attached to the toolbar of the vertical motion slide.

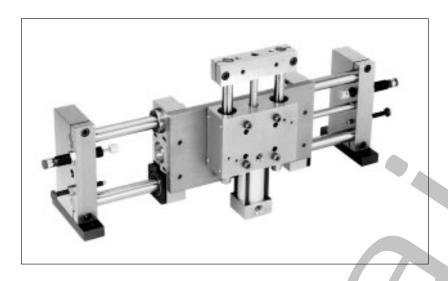
Note 2: On EZ625 model only, this dimension is 1.0" longer than standard EZ625 without the "SB" option.



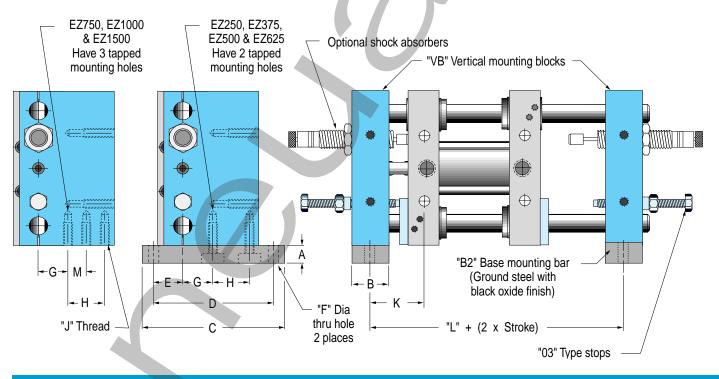
Model	N	Р	R	S	Т	W	Υ	Z
EZ625	2.750	2.000	6.50	.500	1.500	1.750	6.50	1/4-20
EZ750	2.375	2.875	8.31	.750	1.500	2.750	9.00	3/8-16
EZ1000	3.125	3.750	11.44	1.000	2.000	3.250	11.00	1/2-13
EZ1500	4.250	4.750	15.00	1.250	2.500	4.250	14.12	5/8-11



Code "-VB" Vertical Shaft Mounting Blocks



Here at the left an EZ625 Model with "VB" vertical mounting blocks (shown with "03" stop bolts, "B2" mounting bars, and shock absorbers) is joined by a simple adapter plate to a smaller SE Slide to form a two-axis motion device similar to the lift-and-carry mechanism shown on the opposite page.

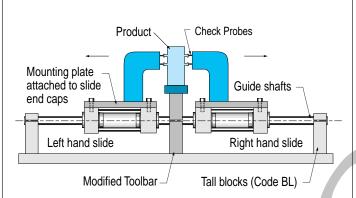


Model	A	В	С	D	Е	F	G	Н	J	K	L	М
EZ250	.38	.50	2.38	1.875	.500	.173	.406	.531	#8-32 x .38	.88	2.50	N/A
EZ375	.38	.75	3.00	2.500	.625	.204	.531	.812	#10-24 x .50	1.25	3.75	N/A
EZ500	.50	1.00	3.88	3.250	.875	.266	.750	1.000	1/4-20 x .62	1.50	4.88	N/A
EZ625	.50	1.00	3.88	3.250	.875	.266	.750	1.000	1/4-20 x .62	1.50	4.88	N/A
EZ750	.75	1.50	5.38	4.375	1.250	.406	.625	1.625	5/16-18 x .75	2.12	6.94	.812
EZ1000	1.00	2.00	7.50	6.000	2.000	.531	.750	1.875	3/8-16 x 1.00	2.75	9.44	.937
EZ1500	1.25	2.50	9.00	7.000	2.250	.656	1.250	2.000	1/2-13 x 1.25	3.50	12.50	1.000

Applications. . .

Here are a few ways standard EZ Series Slides can be custom configured to precisely fit your application.

Two Slides on a Common Shaft



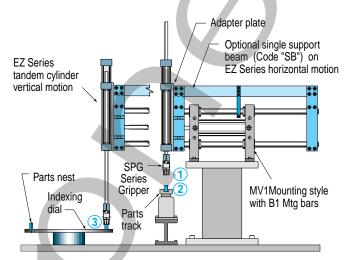
An electrical test is performed by bringing check probes in from both sides to contact the terminal screws on a transformer. A pair of guide shafts extend through a modified toolbar positioned in the center and supporting two individual slides. Both of the slide's piston rods are attached to the center toolbar. Depending on the transformer model tested, either the left or right (or both) sets of check probes can be activated to contact the product.

Parts Adapter plate VB Shaft mounting blocks Riser blocks

One EZ Series Slide joined by a simple adapter plate to a second, smaller EZ Slide forms a two-axis motion device that carries a "comb" which engages parts in an overhead feeder track. The parts are lifted slightly so that work can be performed on them (assembly, checking, ink branding, etc.). The horizontal motion shuttles the parts forward and pushes a part off the end of the track. Next the vertical unit retracts, lowering the "comb" while the horizontal unit returns ready to repeat the cycle.

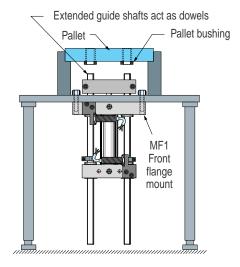
Station table top

Tandem Cylinder Pick & Place



This pick & place application features a three-position tandem cylinder on the vertical motion allowing the track fed parts to be picked up at one level and placed into the nest on the dial at a lower level. 1 is retract position for tandem cylinder; 2 is mid position; 3 is extend position.

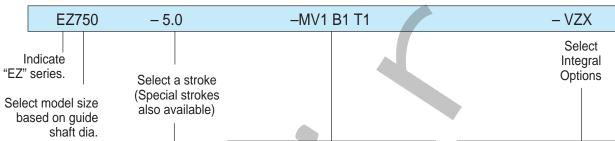
Pallet Lift Station



An EZ Series Slide with front flange mounting (MF1) used as a pallet lift mechanism on a conveyor type assembly system. Extra length guide shafts extend through the slide's toolbar and act as locating dowels that engage pallet bushings to provide precise pallet positioning.



Step 1



Model Size	Guide Shaft Diameter	Bore
250	1/4"	1/2"
375	3/8"	3/4"
500	1/2"	1-1/8"
625	5/8"	1-1/8"
750	3/4"	2"
1000	1"	2-1/2"
1500	1-1/2"	3-1/4"

Mounting Styles

MH1 = Thru Hole Mounting

MH2 = Tapped Hole Mounting

MF1 = Front Flange Mounting

MF2 = Rear Flange Mounting

MF3 = Front & Rear Flange Mounting

MV1 = Side Tapped Mounting Holes

MV2 = Side Tapped with Ports on Opposite Sides

MV1B1 = Side Tapped Mounting Holes with Base Mounting Bars (1 Pair)

MV2B1 = Side Tapped Mounting Holes with Ports on Opposite Sides and Base Mounting Bars (1 Pair)

Integral Options

D — — Dowel Hole and Slot Specify Surface Location(s) 1, 2, 3, 4, or 6 in box(es)

H- Hydraulic Cylinder Seals

V- Viton Cylinder Seals

Bearing Options

W- Rulon® Sleeve Bearings

X- Duralon® Sleeve Bearings

Guide Shaft Options

Y- Hollow Guide Shafts

Z- Stainless Steel Guide Shafts

Model

Standard Stroke Length

EZ250	1/2"	to	4"	by	1/2"	increments
EZ375	1"	to	6"	by	1"	increments
EZ500	1"	to	10"	by	1"	increments
EZ625	1"	to	10"	by	1"	increments
EZ750	1"	to	6"	by	1"	increments
LZ130	8"	to	18"	by	2"	increments
EZ1000	1"	to	6"	by	1"	increments
	8"	to	20"	by	2"	increments
EZ1500	2"	to	30"	bv	2"	increments

Toolbars

- T1 = Blank Toolbar
- T2 = Toolbar for Model EZ375 to attach an EZ375
- T3 = Toolbar for Model EZ500 to attach an SE500 or an EZ500
- T4 = Toolbar for Model EZ1000 to attach an SE500, EZ500, SE750 or EZ750



How to Order Summary

