

## ORDERING INFORMATION

PART NO.	DESCRIPTION
APN16E	Standard - Adjustable bearing plug with FrelonJ® bearing liner. Use with 300 series stainless or soft shafting.
APN16	Optional - Adjustable bearing plug with FrelonGOLD® bearing liner. Use with steel shafting.
APN16F	Optional - Adjustable bearing plug with FrelonF® bearing liner. Use with steel shafting and 440 stainless steel.



## ADJUSTABLE BEARING PLUGS

Plug material is 316 stainless steel.

**BEARING MATERIAL:** FrelonJ® is standard for stainless square steel shafting (APN16 - E). Standard FrelonF® and FrelonGold® are also available for applications to be run on steel.

- Bearing plugs can be purchased separately
- Ideal for use in many applications as a wear pad
- Bearing surface area = .300 in<sup>2</sup>
- MAX Static Load Capacity per Plug = 450 lbs.
- The use of green Loctite is recommended to hold the adjustable bearing plugs in position

## SQUARE BEARING BENEFITS & FEATURES

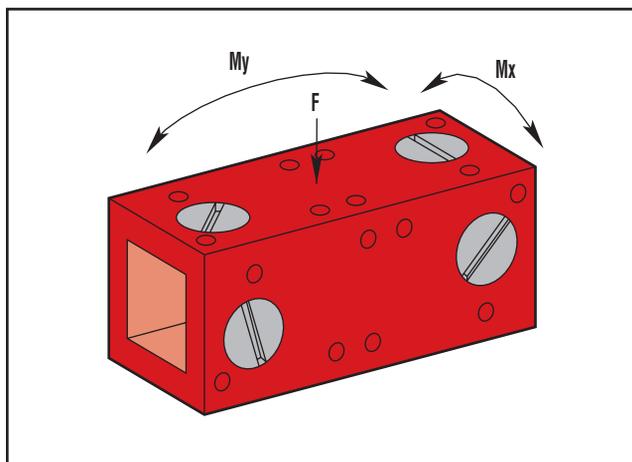
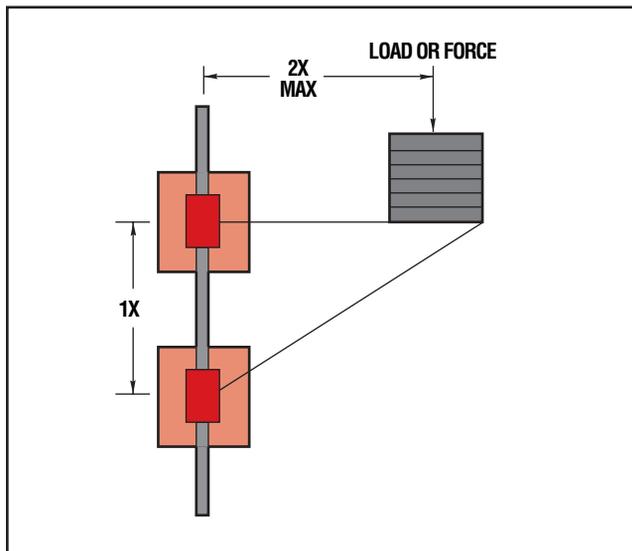
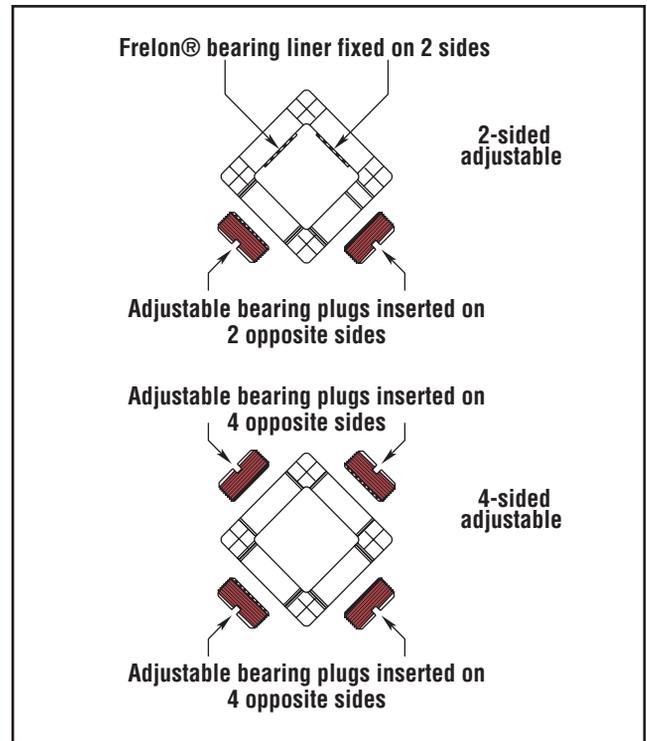
- Runs on a single, square shaft eliminating costly components
- Maintains radial integrity and can eliminate the need for parallel shafting
- Can be mounted in any orientation
- Housings are 6061-T6 aluminum with a standard anodized finish
- Utilizes standard bearing plugs
- Adjustable to maintain tight running clearances, contingent upon shafting
- Bearing plugs are easily replaced

## SAME CHARACTERISTICS OF THE STANDARD ROUNDWAY SIMPLICITY® BEARINGS:

- Self-lubricating
- High load capacity
- Wide temperature range (-400°F/+500°F)  
(-240°C/+260°C)
- Excel in contaminated environments
- High shock loading abilities
- Low wear rates



**CUT-AWAY VIEW**



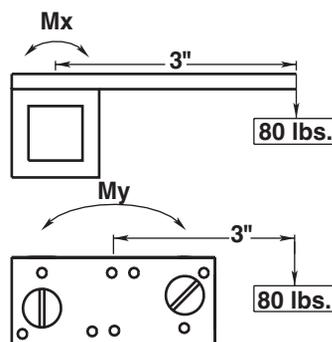
**APPLICATION NOTE:**

Use green Loctite to hold the adjustable bearing plugs in position.

**Two parameters must be met in the design and use of square bearings:**

1. The 2:1 ratio for cantilevered loads applies to square bearings in the same way as roundway Simplicity® bearings. Binding will occur if the ratio is not met! **NOTE:** if only one bearing is used, the 2:1 applies from plug centers.
2. The maximum load and moment load must be met. To calculate the acceptable cantilever or lever arm, multiply the length (from center of the bearing to the center of the load) times the weight. The result must be less than the moment load for that orientation.

**EXAMPLE:** Distance of cantilever = 3"  
 Amount of load = 40 lbs.  
 3" x 40 lbs. = 120 in-lbs.



**SQUARE BEARING LOADING INFORMATION**

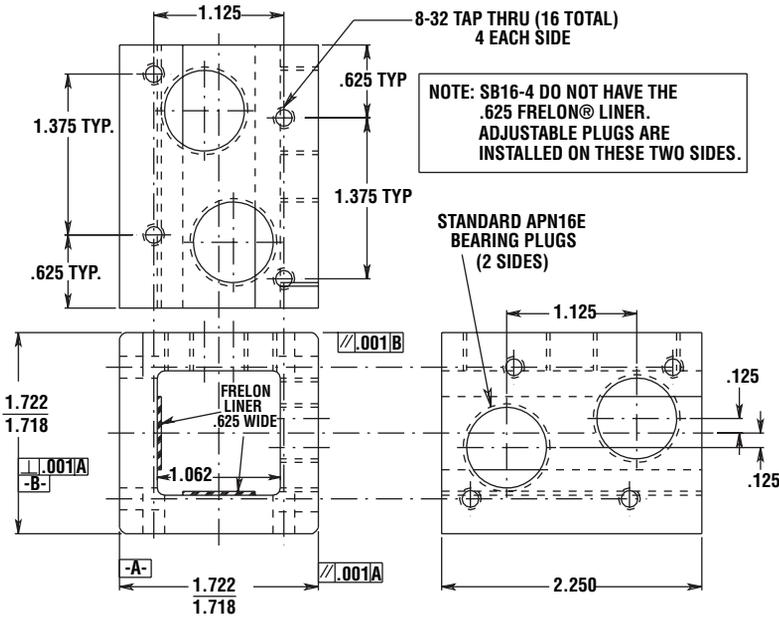
PART NO.	MAXIMUM MOMENTS (TORSIONAL CAPACITIES) (IN-LBS.)		MAXIMUM FORCE (LBS.)
	Mx	My	
SB16	74	165	920
SBL16	74	475	920
SB24	416	402	1840
SBL24	416	1413	1840



# SIMPLICITY® 1.0" SQUARE BEARING SPECIFICATIONS

"SB16-2"  
"SB16-4"

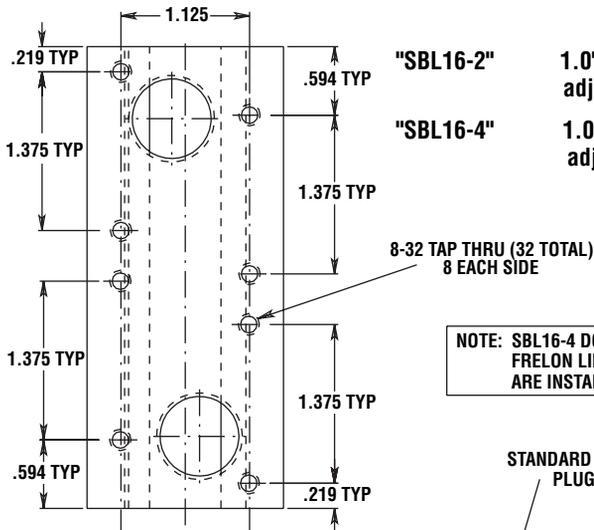
1.0" 2-Sided adjustable square bearing  
1.0" 4-Sided adjustable square bearing



## ORDERING INFORMATION

PART NO.	DESCRIPTION	BEARING WEIGHT (LBS)
SB16-2E	Standard 1.0" two-sided adjustable square bearing with FrelonJ® plugs for stainless steel shafting	.48
SB16-2	Optional 1.0" two-sided adjustable square bearing with FrelonGOLD® plugs for steel shafting	.48
SB16-4E	Standard 1.0" four-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	.56
SB16-4	Optional 1.0" four-sided adjustable square bearing with FrelonF or FrelonGOLD plugs for steel shafting	.56
SBL16-2E	Standard 1.0" extended length, two-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	.77
SBL16-2	Optional 1.0" extended length, two-sided adjustable square bearing with FrelonGOLD plugs for steel shafting	.77
SBL16-4E	Standard 1.0" extended length, four-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	.85
SBL16-4	Optional 1.0" extended length, four-sided adjustable square bearing with FrelonF or FrelonGOLD plugs for steel shafting	.85

SIMPLICITY®

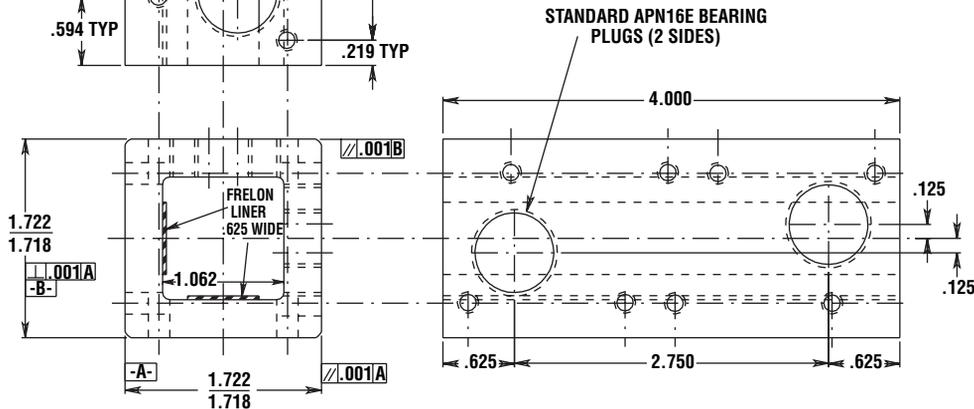


"SBL16-2"

1.0" Extended length 2-sided adjustable square bearing

"SBL16-4"

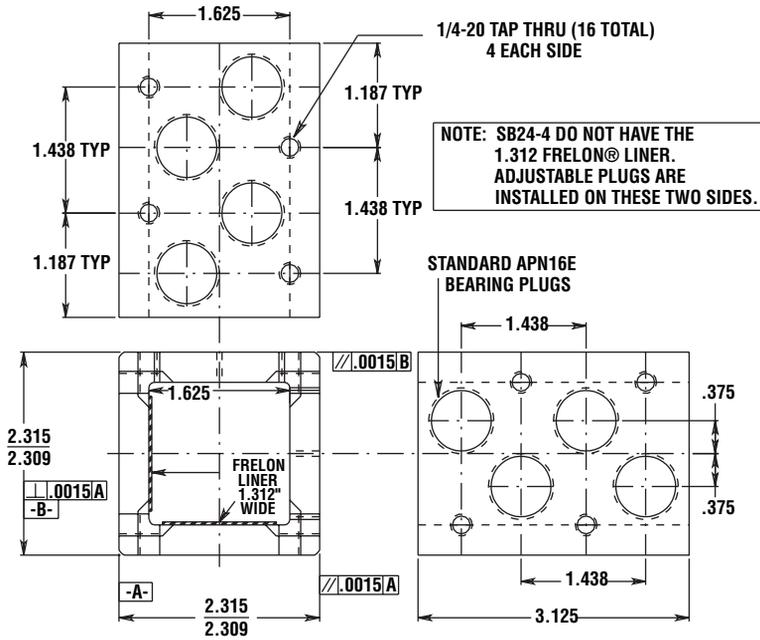
1.0" Extended length 4-sided adjustable square bearing



# SIMPLICITY® 1.5" SQUARE BEARING SPECIFICATIONS

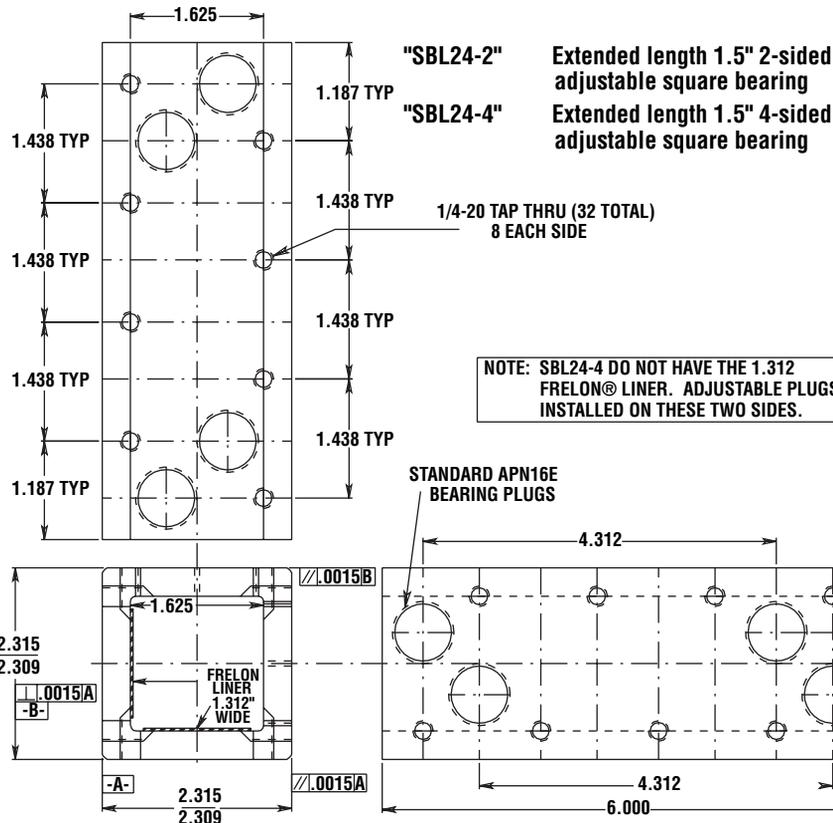


"SB24-2"  
1.5" 2-Sided adjustable square bearing  
"SB24-4"  
1.5" 4-Sided adjustable square bearing



## ORDERING INFORMATION

PART NO.	DESCRIPTION	BEARING WEIGHT (LBS)
SB24-2E	Standard 1.5" two-sided adjustable square bearing with FrelonJ® plugs for stainless steel shafting	.96
SB24-2	Optional 1.5" two-sided adjustable square bearing with FrelonGOLD® plugs for steel shafting	.96
SB24-4E	Standard 1.5" four-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	1.12
SB24-4	Optional 1.5" four-sided adjustable square bearing with FrelonF or FrelonGOLD plugs for steel shafting	1.12
SBL24-2E	Standard 1.5" extended length, two-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	1.71
SBL24-2	Optional 1.5" extended length, two-sided adjustable square bearing with FrelonGOLD plugs for steel shafting	1.71
SBL24-4E	Standard 1.5" extended length, four-sided adjustable square bearing with FrelonJ plugs for stainless steel shafting	1.84
SBL24-4	Optional 1.5" extended length, four-sided adjustable square bearing with FrelonF or FrelonGOLD plugs for steel shafting	1.84



"SBL24-2"  
Extended length 1.5" 2-sided adjustable square bearing  
"SBL24-4"  
Extended length 1.5" 4-sided adjustable square bearing



# SIMPLICITY® SQUARE SHAFTING & ACCESSORIES



## SQUARE SHAFTING

- 304 Stainless steel (standard) is highly corrosion resistant
- Buffed and polished to provide an excellent running surface for FrelonJ®
- Both 1" and 1.5" available cut to any length up to 10 feet
- Wall thickness is  $\cong .120$ "

## ORDERING INFORMATION

PART NO.	DESCRIPTION	WT. LBS/INCH
PST16-xx	Standard 1.0" 304 stainless steel square shafting	0.12
PST24-xx	Standard 1.5" 304 stainless steel square shafting	0.18

xx - Specify length in inches. Cut charge applied.

## SQUARE MOUNTING ACCESSORIES

All mounting accessories are made from cast 356-T6 aluminum for good strength and corrosion resistance.

### ORDERING INFORMATION - (Square Clamps)

PART NO.	A	B	C	D	E	F	G	H
PFL1000	1.00	0.984	1.968	0.630	2.362	0.197	0.200	0.787
PFL1500	1.50	1.338	2.677	0.787	2.953	0.276	0.256	1.024

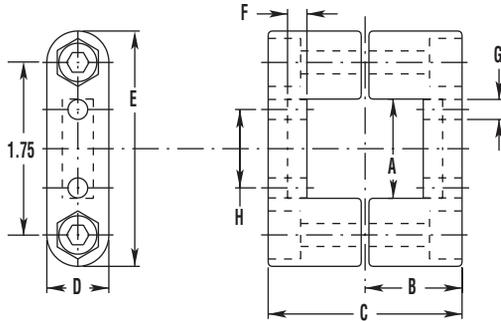
Includes 2 M6 x 1 Hex head bolts, 1.5" long

### ORDERING INFORMATION - (Flanged Base)

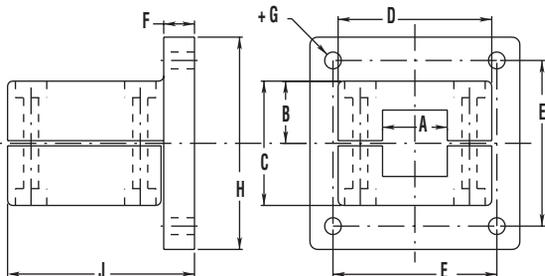
PART NO.	A	B	C	D	E	F	G	H	J
PBH1000	1.00	0.984	1.890	2.362	2.520	0.472	0.256	3.228	2.874
PBH1500	1.50	1.338	2.440	2.756	2.992	0.551	0.256	3.740	3.347

Other housing configurations are also available. Size specifications are available upon request.

PFL



PBH



**ANGLE BRACKET** – 1 1/2" only  
Part No. PAN1515

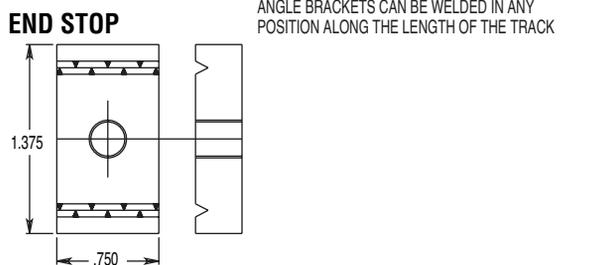
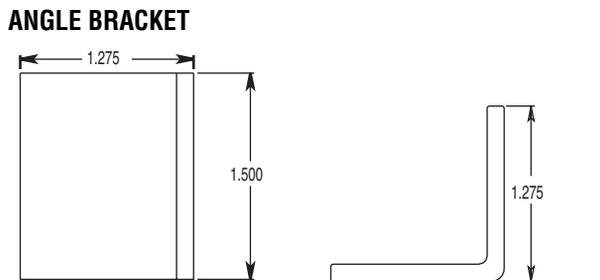
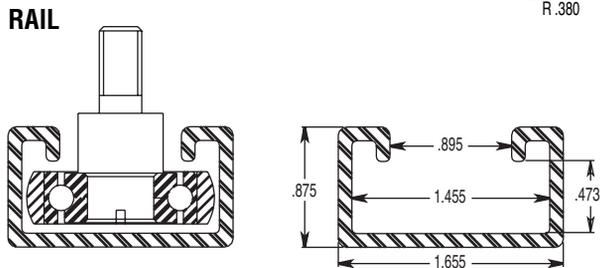
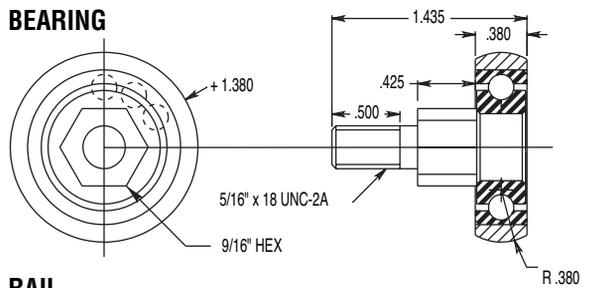


**CROSS MOUNT** – 1 1/2" only  
Part No. P XK1515



**CROSS MOUNT ROUND & SQUARE** – 1 1/2" only  
Part No. PXM1515

# SIMPLICITY® HARDENED CROWN ROLLER



- Low cost linear motion solution
- Precision rolling element bearing riding in a Unistrut™ type rail
- 9/16" Hex head for easier mounting
- Simple solution and setup for point-to-point applications
- Hardened crown provides self-alignment, good strength, and long life
- MAX. bearing load - 300 lbs.
- MAX. bearing speed - 150 ft./ min. (30 in./sec.)
- Rails available in lengths up to 10'

## RAILS AVAILABLE WITH TWO FINISHES:

- Bare steel
- Powder coated

## ACCESSORIES AVAILABLE:

- Angle brackets (for welding to mounting rail)
- End stops

™ Unistrut is a trademark of Unistrut, Inc.

## ORDERING INFORMATION

PART NO.	DESCRIPTION
PAC3016	Hardened Crown Roller Bearing
PAC3016M	Hardened Crown Roller Bearing with metric thread
PAC2245	Rail System - unpainted (specify length - priced per foot)
PAC2247	Rail System - black powder coat finish (specify length- price per foot)
PAC2244	Angle Brackets - 1" Steel
PAC2246	End Stops for Rail System (bolt included)