





Quick link to

Main Website



Quick link to

Master Catalog



Quick link to **3D CAD Link**



Quick link to **Videos**

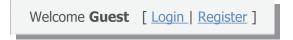
Note: When viewing the electronic version, simply click on the image in the right hand corner, and the link will automatically take you to 3D CAD Link.

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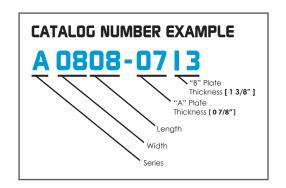


A SERIES MOLD BASES

This is a standard in the industry that suits a variety of applications. These mold base assemblies lend themselves to through pocket machining.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. Top Clamp Plate Thickness and Slot Method
- 6. Inboard or Outboard Return Pin Location



TOP CLAMPING PLATE "A" PLATE "B" PLATE SUPPORT PLATE **RISER LOWER CLAMPING PLATE**

See 'Standard Mold Plates' Chart for available sizes

STANDARD STEEL TYPES



NO.3 STEEL ASSEMBLY

TOP CLAMPING PLATE

"A" PLATE

"B" PLATE

SUPPORT PLATE





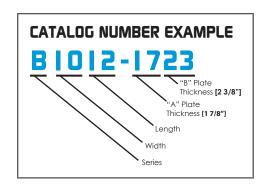


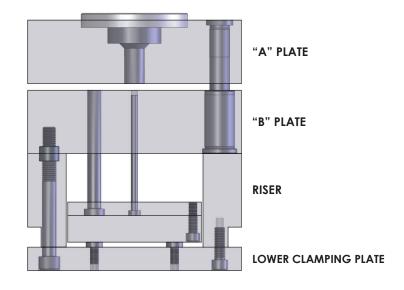
B SERIES MOLD BASES

This popular series does not have top or support plates and is suited for blind pockets. It is also specified when machining cavity/core geometry directly into A/B plates.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. Top Clamp Slot Method
- 6. Inboard or Outboard Return Pin Location



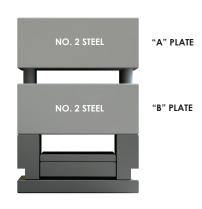


See 'Standard Mold Plates' Chart for available sizes

STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY



NO.2 STEEL ASSEMBLY



NO.3 STEEL ASSEMBLY





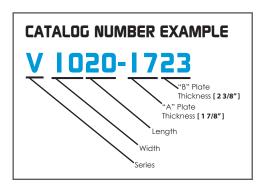


V SERIES MOLD BASES

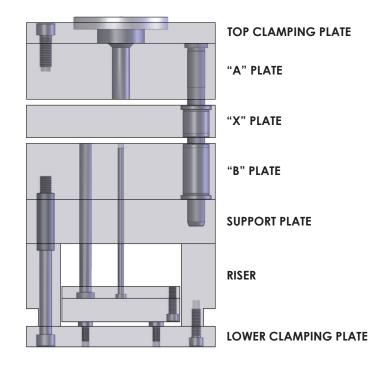
The "V" Series Mold Bases feature a Stripper Plate ("X") located between the "A" and "B" Plates. Based from the "A" Series (pins in "A" Plate), "X" Plate will remain with stationary side.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Cataloa Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. "X" Plate Thickness
- 6. Top Clamp Plate Thickness and Slot Method
- 7. Inboard or Outboard Return Pin Location



See 'Standard Mold Plates' Chart for available sizes



STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY

NO.2 STEEL ASSEMBLY

NO.3 STEEL ASSEMBLY







T SERIES MOLD BASES

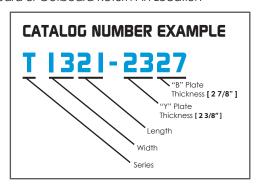
1. "A" Clamp Plate Thickness 1 7/8" for Bases 7 7/8" x 7 7/8" thru 19 1/2" x 35 1/2"

2 3/8" for Bases 23 3/4" x 23 3/4" thru 23 3/4" x 35 1/2"

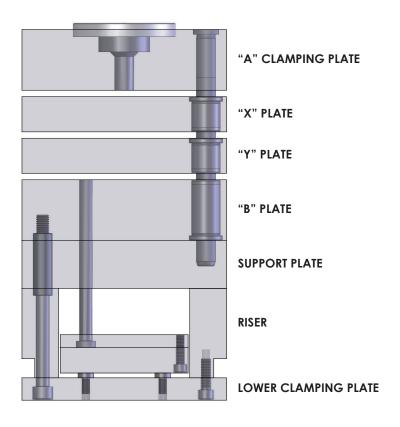
The '3-Plate' design is typically used on top runner molds when two floating plates are required. The "X", "Y" and "B" Plates are available in any thickness you specify.

WHEN ORDERING PLEASE SPECIFY:

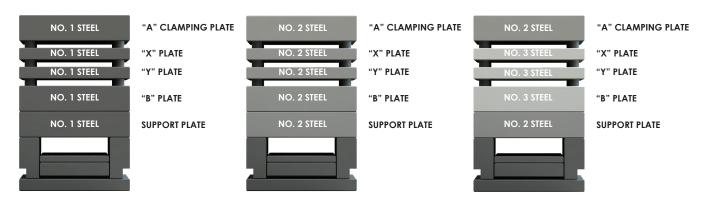
- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. "X" Plate Thickness
- 6. Leader Pin Length
- 7. Top Clamp Slot Method
- 8. Inboard or Outboard Return Pin Location



See 'Standard Mold Plates' Chart for available sizes



STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY

NO.2 STEEL ASSEMBLY





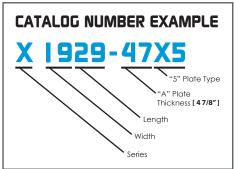


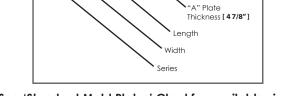
X SERIES - 5 PLATE MOLD BASES

The "X-5" Series Mold Bases feature a Stripper Plate ("X") located between the "A" and "B" Plates, but without a support plate. With the pins in the "B" Plate, the "X" Plate will remain with the moveable side.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. "X" Plate Thickness
- 6. Top Clamp Plate Thickness and Slot Method
- 7. Inboard or Outboard Return Pin Location

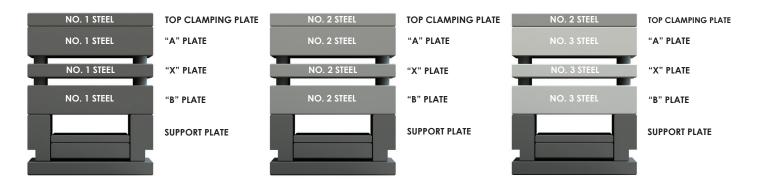




TOP CLAMPING PLATE "A" PLATE "X" PLATE "B" PLATE **RISER** LOWER CLAMPING PLATE

See 'Standard Mold Plates' Chart for available sizes

STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY

NO.2 STEEL ASSEMBLY





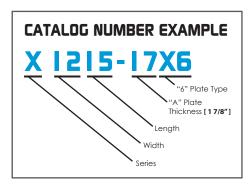


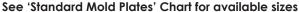
X SERIES - 6 PLATE MOLD BASES

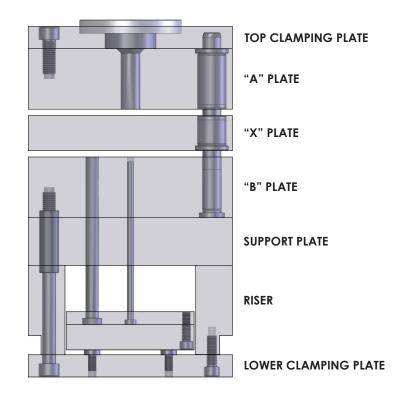
The "X-6" Series Mold Bases feature a Stripper Plate ("X") located between the "A" and "B" Plates. With the pins in the "B" Plate, the "X" Plate will remain with the moveable side.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Locating Ring Catalog Number
- 4. C, E, O, R Dimensions
- 5. "X" Plate Thickness
- 6. Top Clamp Plate Thickness and Slot Method
- 7. Inboard or Outboard Return Pin Location







STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY

NO.2 STEEL ASSEMBLY







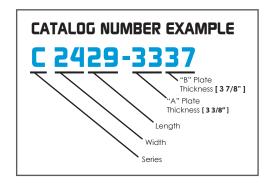
CAVITY RETAINER SETS

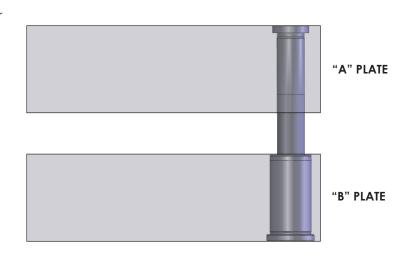
CAVITY RETAINER SETS

These Sets are ideal as replacements for other Cavities and Core Plates on your existing molds. Apply them also when you are constructing your own mold bases - whether for compression or injection molding, or die casting dies.

WHEN ORDERING PLEASE SPECIFY:

- 1. Quantity and Catalog Number
- 2. Steel Type
- 3. Leader Pin Length





See 'Standard Mold Plates' Chart for available sizes

STANDARD STEEL TYPES



NO.1 STEEL ASSEMBLY

NO.2 STEEL ASSEMBLY



STANDARD STEEL TYPES

A36 MOD STEEL (#1)

A modified A36 steel with a restricted carbon range that is centered on 1020. It is a hot-rolled mild steel with greater tensile strength than typical low carbon warehouse steels. It has consistent machinability permitting economic stock removal.

C	15/.25
Mn	60/.90
P	.04 Max.
S	.05 Max.

4130 STEEL (#2)

An AISI 4130 alloy steel that is supplied heat treated to 300 Bhn (262-321). This holder block quality type of steel has an optimum balance between machinability and hardness while possessing excellent qualities for retainer and back up plate applications.

C27/.33 (.29 Typ.)
Mn91/1.30 (1.15 Typ.)
P035 Max.
S
Cr60/.90 (.75 Typ.)
Mo15/.25 (.20 Typ.)
Si15/.40 (.28 Typ.)
V02 Min. (.04 Tvp.)

P-20/STEEL (#3)

A premium AISI 4130 alloy steel with reduced sulfur for cleanliness and excellent polishing ability. Supplied at 300 Bhn (262-321), this P20 type steel offers consistent machinability while maintaining superb mechanical properties.

C24/.35 (.29 Typ.)
Mn75/1.00 (.90 Typ.)
P
S
Cr90/1.20 (1.05 Typ.)
Mo45/.65 (.55 Typ.)
Si15/.40 (.28 Typ.)
V04 Min. (.06 Tvp.)

4140 AS ROLLED

An AISI 4140 chrome alloy steel supplied at 22-26 Rc (245 BHn) typical. This hot-rolled steel provides vastly superior mechanical properties in comparison to typically used A36 plate with economical value against prehard alloys. Stocked in 1/8" oversized thickness up to 4.125".

C 0.38/0.43
Mn 0.75/1.00
Cr 0.80/1.10
Mo 0.15/0.25
Si 0.15/0.30
P 0.035 Max.
S 0.040 Max

SUPERPLAST®STAINLESS STEEL

Superplast® SP Stainless (420 F Mod.) is a new 290-330 Bhn prehardened free machining mold steel. It has been specially designed for plastic mold bases, holders and unetched/ unpolished inserts and dies. Superplast® offers improved machinability, consistency and wearability. Moreover, the special chemistry, based on low carbon and 12% Chromium content, confers to the steel a good corrosion resistance to different media. Superplast® Stainless is not designed for highly polished or textured surfaces.

C	0.07
S 0.15	Мах.
Si	0.10
Cr	12.0

FORGE-RITE™

This hot-rolled 4340 alloy steel is a proprietary material specially formulated for the manufacture of forging equipment and tooling. It is a tough, shock resistant nickel-chrome-moly steel with optimum grain flow characteristics. It is supplied "Stress relieved" at 215-255 Bhn with improved machinability. Typical applications include those with severe impact, heat, wear, and stress.

C
Mn
Cr
Mo
Si
Ni 1.65/2.00

FORTAL®ALUMINIUM

This exclusive 7000 series aluminum alloy offers high strength, light weight, and exceptional machinability. Low residual stress and modulus of elasticity prevents premature deformation. Its uniform cross-section is harder than mild steel. The thermal conductivity being greater than steel along with excellent polishing characteristics, makes Fortal a good choice for plastic mold use.

Cu 1.6	
Mg	
Zn 5.6 Al 90.07	

TOOLOX®44

A low carbon premium alloy steel designed to have high impact strength (Charpy tested at 20ft lbs) and low residual stresses and therefore good dimensional stability. At 45 HRc, this steel can be readily machined compared to steels of like hardness. Toolox 44 is formulated to ERS properties and can be polished to a LENS quality finish.

C 0.31
Mn 0.90
S
Cr 1.35
Mo80
Si60
V145
Ni

OTHER METALS - Superior supplies products in other metals on special order with a variety of machining options. Non-stock materials may require extra lead time.



SUPERIOR STANDARD MOLD PLATES

Part No. Catalog		BASE MOLD PLATE THICKNESS (ie. Top, A, B, X Plates)							MOLD PLATE THICKNESS (ie. Top, A, B, X Plates)					
Size	W	L	7∕a" 07	I 3/8" I3	1 1/8" 17	2 %" 23	2 %" 27	3 %" 33	3 %" 37	4 %" 47	5 %" 57			
0808	7 %	7 %												
0812	7 %	11%												
1008	9 %	8												
1012	9 %	11%												
1016	9 %	16												
1020	9 1/8	20												
1112	10 %	12												
1114	10 %	14												
1118	10 %	18												
1123	10 %	23½												
1212	11%	12												
1215	11%	15												
1220	11%	20												
1223	11%	23½												
1315	13%	15												
1318	13 %	18												
1321	13 %	20 ¾												
1323	13 %	23 ½												
1326	13 %	26												
1329	13 %	29 ½												
1518	14 %	17 %												
1524	14 %	23 ¾												
1529	14 1/8	29 ½												
1616	15 %	16												
1620	15 %	20												
1623	15%	23½												
1626	15%	26												
1629	15%	291/2												
1635	15%	35½												
1724	161/2	23¾												
1729	16½	29½												
1818	17 %	18												
1820	17 %	20												
1823	17 %	23½												
1826	17 %	26												
1829	17 %	291/2												
1835	17 %	35½												
1924	191/2	23¾												
1929	191/2	29½												
1935	19½	35½												
2424	23 3/4	_												
2429	23 3/4	29 ½												
2435	23 3/4	35 ½												
			ness: Ra 63 f	inish +.005/0	000" Ra 32 fi	nish +/001"	Edges: Ra 33	2 finish +/00.	5" Or, as oth	erwise speci	fied.			
					= 4130 HOLI		3 = 4130 P		RTAL® ALUMI					

2090



SUPERIOR STANDARD MOLD PLATES

Part No. Catalog	PLATE		RISER PLATE RETAINER "C" HEIGHT PLATE THICKNESS		"C" UCICUT			EJECTOR THICKNESS			
Size	THK	2.500	3.000	3.500	4.000	4.500	WIDTH	0.500	0.625	1.000	1.125
0808	1.250						5.250				
0812	1.250						5.250				
1008	1.438						6.875				
1012	1.438						6.875				
1016	1.438						6.875				
1020	1.438						6.875				
1112	1.688						7.375				
1114	1.688						7.375				
1118	1.688						7.375				
1123	1.688						7.375				
1212	1.688						8.375				
1215	1.688						8.375				
1220	1.688						8.375				
1223	1.688						8.375				
1315	1.875						9.500				
1318	1.875						9.500				
1321	1.875						9.500				
1323	1.875						9.500				
1326	1.875						9.500				
1329	1.875						9.500				
1518	1.875						11.000				
1524	1.875						11.000				
1529	1.875						11.000				
1616	1.875						12.000				
1620	1.875						12.000				
1623	1.875						12.000				
1626	1.875						12.000				
1629	1.875						12.000				
1635	1.875						12.000				
1724	1.875						12.625				
1729	1.875						12.625				
1818	1.875						14.000				
1820	1.875						14.000				
1823	1.875						14.000				
1826	1.875						14.000				
1829	1.875						14.000				
1835	1.875						14.000				
1924	1.875						15.625				
1929	1.875						15.625				
1935	1.875						15.625				
2424	1.875						19.875				
2429	1.875						19.875				
2435	1.875						19.875				
		ickness: Ra	63 finish +.00	05/000'' Ra	32 finish +/-	.001" Edges	: Ra 32 finish	ı +/005" O	r, as otherw	ise specified	i.
			A36 MOD		OLDER BLOC			= FORTAL®			



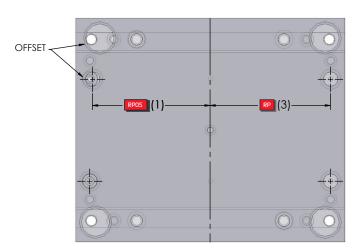
RETURN PINS - OUTBOARD

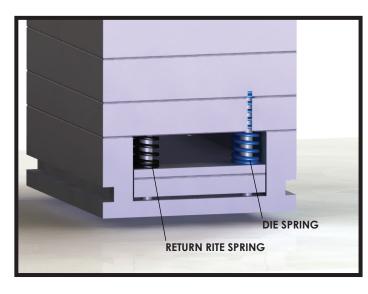
Superior offers two RETURN PIN locations to best suit your mold design requirements. Both locations are considered 'standard' at Superior Die Set and will not affect the price or lead time of the mold base.

Location 'Outboard' puts the pins in the traditional location which offers you the maximum work area inside the mold base. However, when using 'die springs' these locations will cause a break out where the spring pocket meets the outside edge of the mold base. This can be simply solved by using Return Rite™ springs which requires a smaller spring pocket hole and eliminates the break out (see note below).

Special return pin locations are also available upon request.

RETURN PIN POSITION





RETURN PIN LOCATIONS

MOLD BASE SIZE	PIN LOCATION - X DIMENSION						
	OUTBOARD (TRADITIONAL)						
(CATALOG NO.)	RP 3 - PL	RPOS I - PL					
0808 *	3.3750	3.2500					
0812 *	5.3750	5.2500					
1008	3.3750	3.2500					
1012	5.3125	5.1875					
1016	7.3750	7.2500					
1020	9.3750	9.2500					
1112	5.3750	5.2500					
1114	6.3750	6.2500					
1118	8.3750	8.2500					
1123	11.1250	11.0000					
1212	5.3750	5.2500					
1215	6.8750	6.7500					
1220	9.3750	9.2500					
1223	11.1250	11.0000					
1315	6.8750	6.7500					
1318	8.3750	8.2500					
1321	9.6250	9.5000					
1323	11.0000	10.8750					
1326	12.2500	12.1250					
1329	14.0000	13.8750					
1518	8.2500	8.1250					
1524	11.1250	11.0000					
1529	14.0000	13.8750					
1616	7.2500	7.1250					
1620	9.2500	9.1250					
1623	11.0000	10.8750					
1626	12.2500	12.1250					
1629	14.0000	13.8750					
1635	17.0000	16.8750					
1724	11.1250	11.0000					
1729	14.0000	13.8750					
1818	8.2500	8.1250					
1820	9.2500	9.1250					
1823	11.0000	10.8750					
1826	12.2500	12.1250					
1829	14.0000	13.8750					
1835	17.0000	16.8750					
1924	11.1250	11.0000					
1929	14.0000	13.8750					
1935	17.0000	16.8750					
2424	11.1250	11.0000					
2429	14.0000	13.8750					
2435	17.0000	16.8750					

NOTE: * Spring break-out will still occur with Return Rite springs on these two mold base sizes due to extreme outboard pin locations.



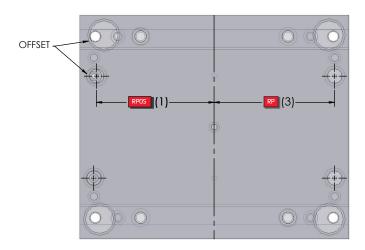
RETURN PINS - INBOARD

Superior offers two RETURN PIN locations to best suit your mold design requirements. Both locations are considered 'standard' at Superior Die Set and will not affect the price or lead time of the mold base.

Location 'Inboard' puts the pins inward from the traditional locations so that spring pocket holes will not break out when using die springs. Return Rite™ springs can also be used in these locations to increase work area in the mold base. For more information regarding Return Rite springs, see our Component section.

Special return pin locations are also available upon request.

RETURN PIN POSITION





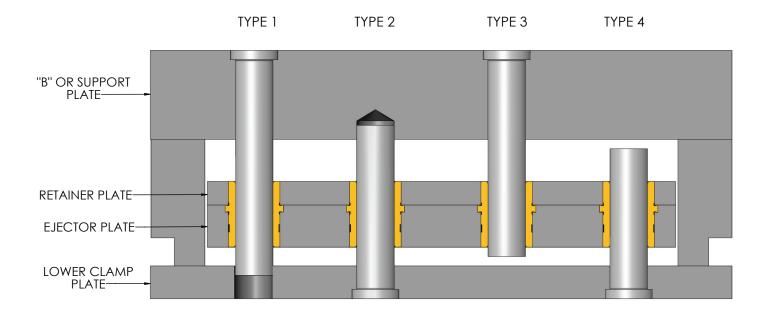
RETURN PIN LOCATIONS

MOLD BASE SIZE	PIN LOCATION - X DIMENSION		
	INBOARD		
(CATALOG NO.)	RP 3 - PL	RPOS I- PL	
0808	3.3125	3.1875	
0812	5.3125	5.1875	
1008	3.2500	3.1250	
1012	5.1875	5.0625	
1016	7.2500	7.1250	
1020	9.2500	9.1250	
1112	5.2500	5.1250	
1114	6.2500	6.1250	
1118	8.2500	8.1250	
1123	11.0000	10.8750	
1212	5.1250	5.0000	
1215	6.6250	6.5000	
1220	9.1250	9.0000	
1223	10.8750	10.7500	
1315	6.6250	6.5000	
1318	8.1250	8.0000	
1321	9.5000	9.3750	
1323	10.8750	10.7500	
1326	12.1250	12.0000	
1329	13.8750	13.7500	
1518	8.0625	7.9375	
1524	11.0000	10.8750	
1529	13.8750	13.7500	
1616	7.1250	7.0000	
1620	9.1250	9.0000	
1623	10.8750	10.7500	
1626	12.1250	12.0000	
1629	13.8750	13.7500	
1635	16.8750	16.7500	
1724	11.0000	10.8750	
1729	13.8750	13.7500	
1818	8.1250	8.0000	
1820	9.1250	9.0000	
1823	10.8750	10.7500	
1826	12.1250	12.0000	
1829	13.8750	13.7500	
1835	16.8750	16.7500	
1924	11.0000	10.8750	
1929	13.8750	13.7500	
1935	16.8750	16.7500	
2424	11.0000	10.8750	
2429	13.8750	13.7500	
2435	16.8750	16.7500	
		•	



GUIDED EJECTOR SYSTEM - TYPES

To help align and support ejector plate assemblies during the molding operation, install a Superior Guided Ejector System to all of your mold bases. These systems help eliminate ejector system wear by the use of a leader pin and bushing in the ejector housing. With optional pin installation methods shown below, the bushing is slip-fit in retainer plate and a press-fit in the ejector plate. The locations can be customized to your design or machined to our standard coordinates.



Superior Guided Ejector Systems come with our Bronze Rite™ bushings, which are through-hardened steel with a heavy lining of bronze for maximum lubricity. Or, choose from solid bronze or self lubricating bushing types. Our pins are especially designed with a low profile press-fit not to extend past the lower clamp plate, and only a small radius on the end for positive locating into the support plate.

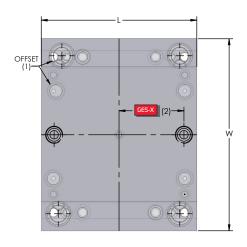
WHEN ORDERING PLEASE SPECIFY: 1. System Type

- 2. Pin Diameter
- 3. Pin Location
- 4. Bushing Type
- 5. Quantity

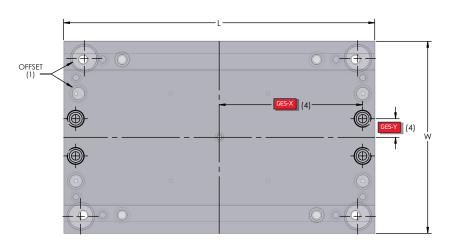




GUIDED EJECTOR SYSTEM - LOCATIONS



"B" PLAN FOR 0808, 0812 & 1008 MOLD BASE SIZE ONLY



"B" PLAN FOR 1012 - 2435 MOLD BASES

GUIDED EJECTOR SYSTEM LOCATIONS

MOLD BASE SIZE	PIN DIAMETER	PIN LOCATION	
(Catalog No.)	(Typically Used)	GES-X	GES-Y
0808	3/4"	3.0000	Centered
0812	3/4"	5.0000	Centered
1008	3/4"	3.0625	Centered
1012	3/4"	5.0000	1.0000
1016	3/4"	7.0625	1.0000
1020	3/4"	9.0625	1.0000
1112	3/4"	5.0625	1.6250
1114	3/4"	6.0625	1.6250
1118	3/4"	8.0625	1.6250
1123	3/4"	10.8125	1.6250
1212	7/8"	5.0000	1.7500
1215	7/8"	6.5000	1.7500
1220	7/8"	9.0000	1.7500
1223	7/8"	10.7500	1.7500
1315	7/8''	6.5000	2.3750
1318	7/8"	8.0000	2.3750
1321	7/8"	9.3750	2.3750
1323	7/8''	10.7500	2.3750
1326	7/8"	12.0000	2.3750
1329	7/8"	13.7500	2.3750
1518	1"	7.8750	2.3750
1524	1"	10.8125	2.3750

MOLD BASE SIZE	PIN DIAMETER	PIN LOCATION	
(Catalog No.)	(Typically Used)	GES-X	GES-Y
1529	1"	13.6875	2.3750
1616	1"	6.9375	2.8750
1620	1"	8.9375	2.8750
1623	1"	10.6875	2.8750
1626	1"	11.9375	2.8750
1629	1"	13.6875	2.8750
1635	1"	16.6875	2.8750
1724	1"	10.8125	3.1250
1729	1"	13.6875	3.1250
1818	1"	7.9375	3.8750
1820	1"	8.9375	3.8750
1823	1"	10.6875	3.8750
1826	1"	11.9375	3.8750
1829	1"	13.6875	3.8750
1835	1"	16.6875	3.8750
1924	1"	10.8125	4.6250
1929	1"	13.6875	4.6250
1935	1"	16.6875	4.6250
2424	1 1/4"	10.6875	6.1250
2429	1 1/4"	13.5625	6.1250
2435	1 1/4"	16.5625	6.1250



CLAMPING SLOTS



* .500 for Mold Bases 7.875" wide

Available Upon Request: Slots machined through plate length and slots on all four Mold Base sides. **For Lower Clamping Slot:** Add "R" suffix to desired slot method shown (ie. AR,CR etc.).









BE FAST™ IN YOUR SELECTION!



IMMEDIATE SHIP KIT™

- FORTAL® aluminum, #2, #3 (P20) steel plates
- #1 steel ejector housing plates
- Ground plates with 0.010 inches finishing stock
- All components, including leader pins, bushings, locating ring, sprue bushing, sprue puller pin, return pins and hardware
- Options: guided ejector components, support pillars, Return-Rite™ springs and more

EXPRESS BASE™

- Complete mold base assembly
- Be Fast[™] and Cavity Retainer Sets in FORTAL[®] aluminum, #2, #3 (P20) steel plates
- With or without center holes
- Relocated components





OUICK CUSTOM™ BASES

- Rough pocket machining
- Eye-bolt (handling) holes
- Water lines
- Guided ejector system
- Support pillars
- Return spring pockets
- Pry slots

CAVITY RETAINER SETS

- A and B cavity retainer plates in FORTAL® aluminum, #2, #3 (P20) steel plates
- Leader Pins and bushing components
- Shipped in Immediate Ship Kits[™] or as Express Base[™] assemblies





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