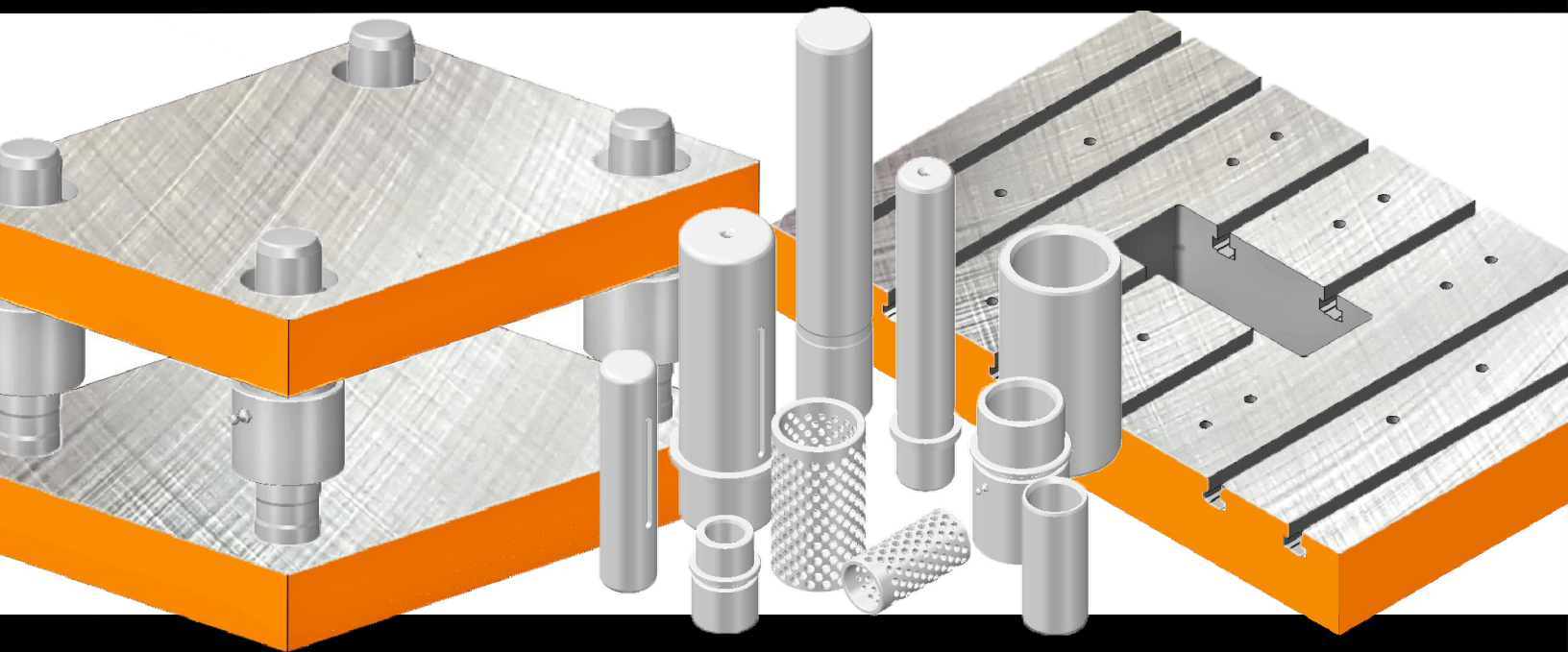


# ***DIE SETS, INC.***

## **GENERAL CATALOG**

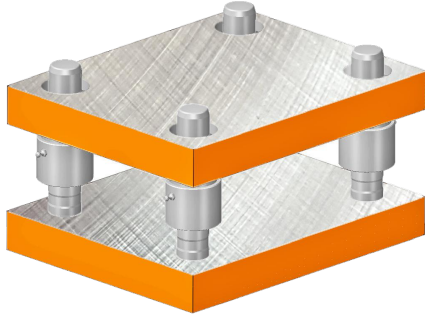


221 NIBERT ROAD, INDIANA, PA 15701 • FAX 724-463-6179  
[WWW.DIESETSINC.COM](http://WWW.DIESETSINC.COM) • [QUOTES@DIESETSINC.COM](mailto:QUOTES@DIESETSINC.COM)

**800-544-9880**

# DIE SETS, INC. PRODUCT LISTING

## CATALOG DIE SETS



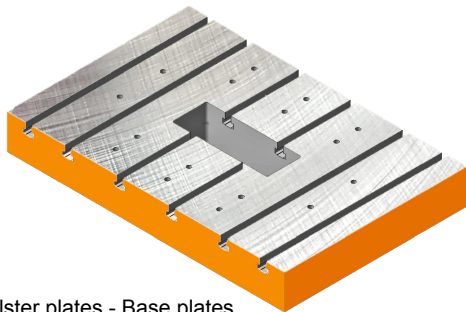
**MODEL 2P** - 2 Post Rear.....Page 2-3  
**MODEL 2PC** - 2 Post Center.....Page 4  
**MODEL 2PD** - 2 Post Diagonal.....Page 5  
**MODEL 4P** - 4 Post.....Page 6

## SPECIAL DIE SETS



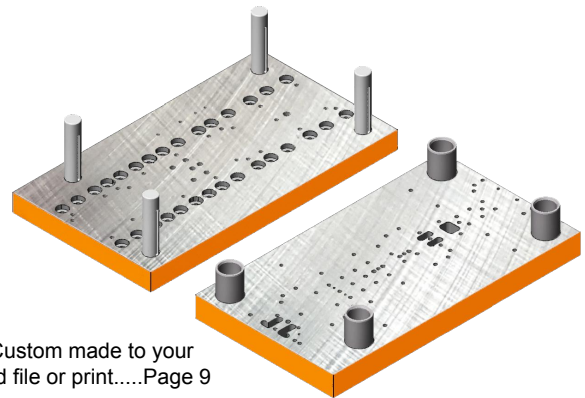
**PLAIN BEARING**.....Page 7  
**BALL BEARING**.....Page 8

## PLATE PRODUCTS



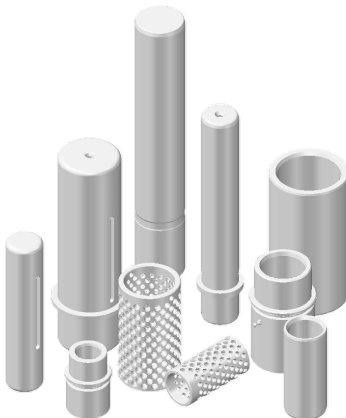
Bolster plates - Base plates  
Adapter plates.....Page 9

## MACHINED DIE SETS



Custom made to your  
cad file or print.....Page 9

## PINS AND BUSHINGS



Plain bearing.....Page 10-12  
Ball bearing.....Page 13-16

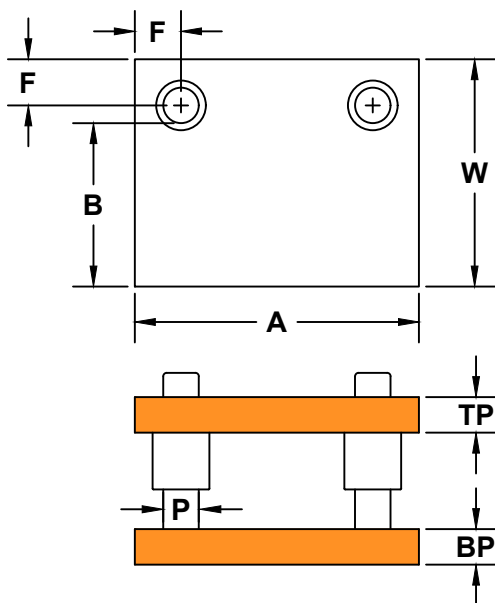
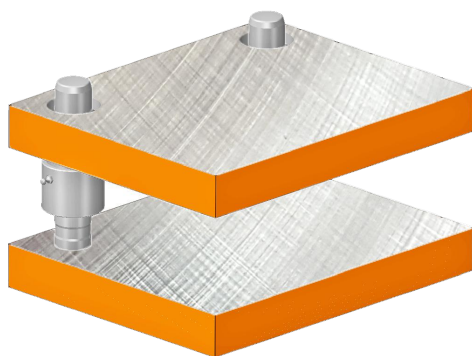
## PUNCH SHANKS



Page 16

# REAR 2 POST ALL STEEL MODEL 2P

# CATALOG DIE SETS PLAIN BEARING



- Catalog die sets can be ready to ship in 2-3 work days.
- Supplied with press fit guide pins and medium shoulder demountable steel bushings unless otherwise specified.
- To order specify quantity, model, die set number, pin length, & shank size if required. Shanks are located on center of both A & B dimensions.

### ORDER EXAMPLE:

QTY MODEL DIE SET# PIN LENGTH  
(1) 2P - 1206-24 x 7

LEFT TO RIGHT <b>A</b>	FRONT TO PIN <b>B</b>	THICKNESS		DIE SET NUMBER	POST DIA <b>P</b>	<b>W</b>	<b>F</b>
		TOP PLATE <b>TP</b>	BOT PLATE <b>BP</b>				
6"	4"	1-1/4	1-1/4	604-22	1	5-3/4	1-1/4
		1-1/4	1-1/2	604-24			
		1-1/2	1-1/2	604-44			
6"	6"	1-1/4	1-1/4	606-22	1	7-3/4	1-1/4
		1-1/4	1-1/2	606-24			
		1-1/2	1-1/2	606-44			
8"	4"	1-1/4	1-1/4	804-22	1	5-3/4	1-1/4
		1-1/4	1-1/2	804-24			
		1-1/2	1-1/2	804-44			
8"	6"	1-1/4	1-1/4	806-22	1	7-3/4	1-1/4
		1-1/4	1-1/2	806-24			
		1-1/4	1-3/4	806-26			
		1-1/2	1-1/2	806-44			
		1-1/2	1-3/4	806-46			
8"	8"	1-1/4	1-1/2	808-24	1	9-3/4	1-1/4
		1-1/4	1-3/4	808-26			
		1-1/2	1-1/2	808-44			
		1-1/2	1-3/4	808-46			
10"	4"	1-1/4	1-1/2	1004-24	1	5-3/4	1-1/4
		1-1/4	1-3/4	1004-26			
		1-1/2	1-1/2	1004-44			
		1-1/2	1-3/4	1004-46			
10"	6"	1-1/4	1-1/2	1006-24	1	7-3/4	1-1/4
		1-1/4	1-3/4	1006-26			
		1-1/2	1-1/2	1006-44			
		1-1/2	1-3/4	1006-46			
10"	8"	1-1/4	1-1/2	1008-24	1-1/4	10-3/4	1-5/8
		1-1/4	1-3/4	1008-26			
		1-1/2	1-1/2	1008-44			
		1-1/2	1-3/4	1008-46			
10"	10"	1-1/4	1-1/2	1010-24	1-1/4	12-1/4	1-5/8
		1-1/4	1-3/4	1010-26			
		1-1/2	1-1/2	1010-44			
		1-1/2	1-3/4	1010-46			
12"	4"	1-1/4	1-1/2	1204-24	1-1/4	6-1/4	1-5/8
		1-1/4	1-3/4	1204-26			
		1-1/2	1-1/2	1204-44			
		1-1/2	1-3/4	1204-46			
12"	6"	1-1/4	1-1/2	1206-24	1-1/4	8-1/4	1-5/8
		1-1/4	1-3/4	1206-26			
		1-1/2	1-1/2	1206-44			
		1-1/2	1-3/4	1206-46			
		1-1/2	2	1206-48			
		2	2	1206-88			
12"	8"	1-1/4	1-1/2	1208-24	1-1/4	10-1/4	1-5/8
		1-1/4	1-3/4	1208-26			
		1-1/2	1-1/2	1208-44			
		1-1/2	1-3/4	1208-46			
		1-1/2	2	1208-48			
		2	2	1208-88			
12"	10"	1-1/4	1-1/2	1210-24	1-1/4	12-1/4	1-5/8
		1-1/4	1-3/4	1210-26			
		1-1/2	1-1/2	1210-44			
		1-1/2	1-3/4	1210-46			
		1-1/2	2	1210-48			
		2	2	1210-88			
14"	4"	1-1/4	1-1/2	1404-24	1-1/4	6-1/4	1-5/8
		1-1/4	1-3/4	1404-26			
		1-1/2	1-1/2	1404-44			
		1-1/2	1-3/4	1404-46			
		1-1/2	2	1404-48			
		2	2	1404-88			

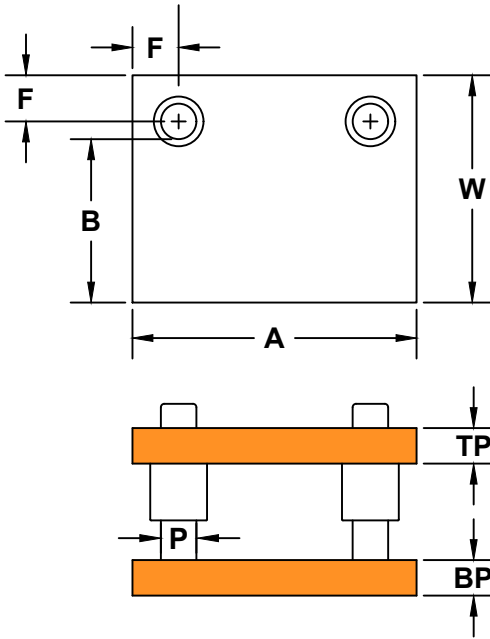
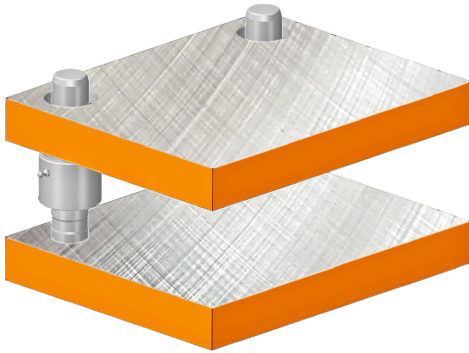
continued on next page

# CATALOG DIE SETS

## PLAIN BEARING

continued from previous page

### REAR 2 POST ALL STEEL MODEL 2P



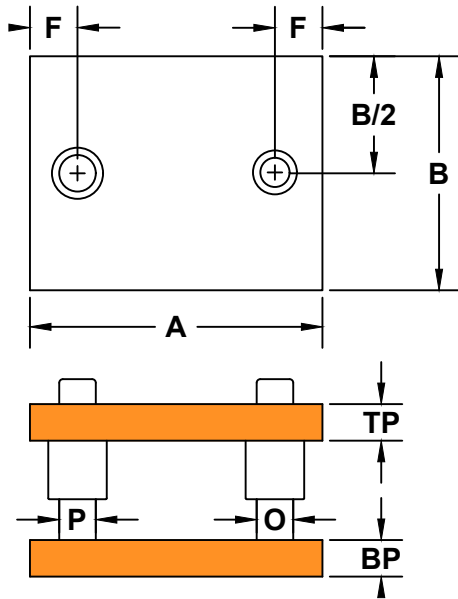
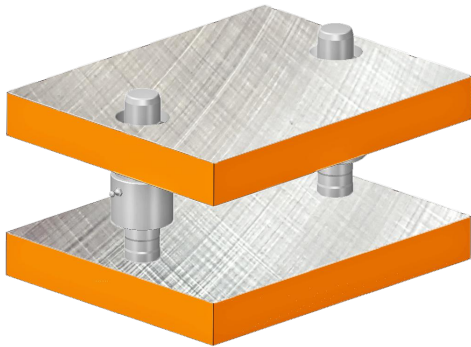
**ORDER EXAMPLE:**

QTY MODEL DIE SET# PIN LENGTH  
(1) 2P - 1206-24 x 7

LEFT TO RIGHT <b>A</b>	FRONT TO PIN <b>B</b>	THICKNESS		DIE SET NUMBER	POST DIA <b>P</b>	<b>W</b>	<b>F</b>
		TOP PLATE <b>TP</b>	BOT PLATE <b>BP</b>				
14"	6"	1-1/4	1-1/2	1406-24	1-1/4	8-1/4	1-5/8
		1-1/4	1-3/4	1406-26			
		1-1/2	1-1/2	1406-44			
		1-1/2	1-3/4	1406-46			
		1-1/2	2	1406-48			
		2	2	1406-88			
14"	8"	1-1/4	1-1/2	1408-24	1-1/4	10-1/4	1-5/8
		1-1/4	1-3/4	1408-26			
		1-1/2	1-1/2	1408-44			
		1-1/2	1-3/4	1408-46			
		1-1/2	2	1408-48			
		2	2	1408-88			
14"	10"	1-1/2	1-1/2	1410-44	1-1/4	12-1/4	1-5/8
		1-1/2	1-3/4	1410-46			
		1-1/2	2	1410-48			
		2	2	1410-88			
14"	12"	1-1/2	1-1/2	1412-44	1-1/2	14-1/2	1-3/4
		1-1/2	1-3/4	1412-46			
		1-1/2	2	1412-48			
		2	2	1412-88			
16"	6"	1-1/4	1-1/2	1606-24	1-1/4	8-1/4	1-5/8
		1-1/4	1-3/4	1606-26			
		1-1/2	1-1/2	1606-44			
		1-1/2	1-3/4	1606-46			
		1-1/2	2	1606-48			
		2	2	1606-88			
16"	8"	1-1/4	1-1/2	1608-24	1-1/4	10-1/4	1-5/8
		1-1/4	1-3/4	1608-26			
		1-1/2	1-1/2	1608-44			
		1-1/2	1-3/4	1608-46			
		1-1/2	2	1608-48			
		2	2	1608-88			
16"	10"	1-1/2	1-1/2	1610-44	1-1/4	12-1/4	1-5/8
		1-1/2	1-3/4	1610-46			
		1-1/2	2	1610-48			
		2	2	1610-88			
16"	12"	1-1/2	1-1/2	1612-44	1-1/2	14-1/2	1-3/4
		1-1/2	1-3/4	1612-46			
		1-1/2	2	1612-48			
		2	2	1612-88			
18"	6"	1-1/2	1-1/2	1806-44	1-1/4	8-1/4	1-5/8
		1-1/2	1-3/4	1806-46			
		1-1/2	2	1806-48			
		2	2	1806-88			
18"	8"	1-1/2	1-1/2	1808-44	1-1/4	10-1/4	1-5/8
		1-1/2	1-3/4	1808-46			
		1-1/2	2	1808-48			
		2	2	1808-88			
18"	10"	1-1/2	1-1/2	1810-44	1-1/2	12-1/2	1-3/4
		1-1/2	1-3/4	1810-46			
		1-1/2	2	1810-48			
		2	2	1810-88			
18"	12"	1-1/2	1-1/2	1812-44	1-1/2	14-1/2	1-3/4
		1-1/2	1-3/4	1812-46			
		1-1/2	2	1812-48			
		2	2	1812-88			
18"	14"	1-1/2	1-1/2	1814-44	1-1/2	16-1/2	1-3/4
		1-1/2	1-3/4	1814-46			
		1-1/2	2	1814-48			
		2	2	1814-88			
20"	8"	1-1/2	1-1/2	2008-44	1-1/2	10-1/2	1-3/4
		1-1/2	1-3/4	2008-46			
		1-1/2	2	2008-48			
		2	2	2008-88			
20"	10"	1-1/2	1-1/2	2010-44	1-1/2	12-1/2	1-3/4
		1-1/2	1-3/4	2010-46			
		1-1/2	2	2010-48			
		2	2	2010-88			
20"	12"	1-1/2	1-1/2	2012-44	1-1/2	14-1/2	1-3/4
		1-1/2	1-3/4	2012-46			
		1-1/2	2	2012-48			
		2	2	2012-88			

# CATALOG DIE SETS PLAIN BEARING

## 2 POST CENTER ALL STEEL MODEL 2PC



- Catalog die sets can be ready to ship in 2-3 work days.
- Supplied with press fit guide pins and medium shoulder demountable steel bushings unless otherwise specified.
- To order specify quantity, model, die set number, pin length, & shank size if required. Shanks are located on center of both A & B dimensions.

LEFT TO RIGHT <b>A</b>	FRONT TO BACK <b>B</b>	THICKNESS		DIE SET NUMBER	POST DIA <b>P</b>	POST DIA <b>O</b>	<b>F</b>
		TOP PLATE <b>TP</b>	BOT PLATE <b>BP</b>				
10"	8"	1-1/4	1-1/2	1008-24	1-1/4	1	1-5/8
		1-1/2	1-1/2	1008-44			
		1-1/2	1-3/4	1008-46			
		1-3/4	1-3/4	1008-66			
12"	10"	1-1/4	1-1/2	1210-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1210-44			
		1-1/2	1-3/4	1210-46			
		1-3/4	1-3/4	1210-66			
12"	12"	1-1/4	1-1/2	1212-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1212-44			
		1-1/2	1-3/4	1212-46			
		1-3/4	1-3/4	1212-66			
14"	10"	1-1/4	1-1/2	1410-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1410-44			
		1-1/2	1-3/4	1410-46			
		1-3/4	1-3/4	1410-66			
14"	12"	1-1/4	1-1/2	1412-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1412-44			
		1-1/2	1-3/4	1412-46			
		1-3/4	1-3/4	1412-66			
14"	14"	1-1/2	1-1/2	1414-44	1-3/4	1-1/2	1-7/8
		1-1/2	1-3/4	1414-46			
		1-3/4	1-3/4	1414-66			
		1-3/4	2	1414-68			
16"	12"	1-1/2	1-1/2	1612-44	1-3/4	1-1/2	1-7/8
		1-1/2	1-3/4	1612-46			
		1-3/4	1-3/4	1612-66			
		1-3/4	2	1612-68			
16"	14"	1-1/2	1-3/4	1614-46	2	1-3/4	2
		1-3/4	1-3/4	1614-66			
		1-3/4	2	1614-68			
		2	2	1614-88			
16"	16"	1-1/2	1-3/4	1616-46	2	1-3/4	2
		1-3/4	1-3/4	1616-66			
		1-3/4	2	1616-68			
		2	2	1616-88			
18"	12"	1-1/2	1-3/4	1812-46	2	1-3/4	2
		1-3/4	1-3/4	1812-66			
		1-3/4	2	1812-68			
		2	2	1812-88			
18"	14"	1-1/2	1-3/4	1814-46	2	1-3/4	2
		1-3/4	1-3/4	1814-66			
		1-3/4	2	1814-68			
		2	2	1814-88			
20"	14"	1-1/2	1-3/4	2014-46	2	1-3/4	2
		1-3/4	1-3/4	2014-66			
		1-3/4	2	2014-68			
		2	2	2014-88			

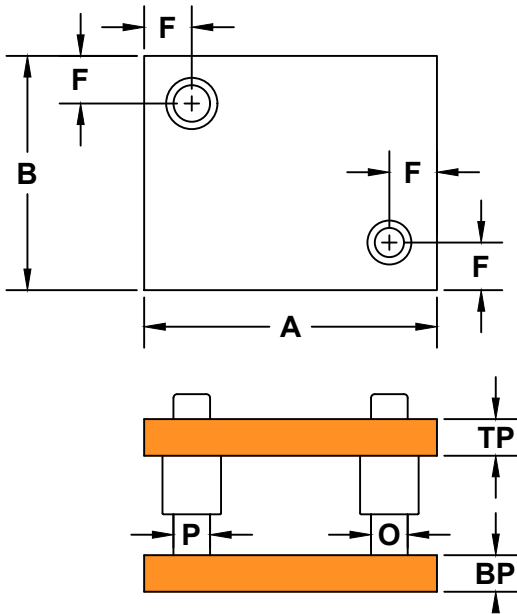
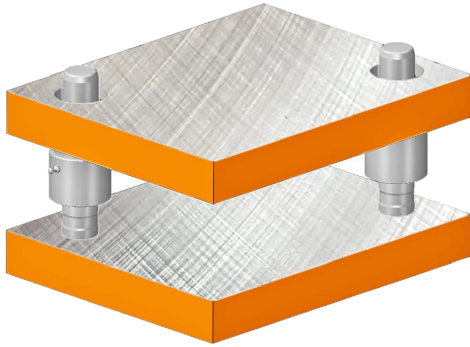
### ORDER EXAMPLE:

QTY MODEL DIE SET# PIN LENGTH  
(1) 2PC - 1008-24 x 7

# CATALOG DIE SETS

## PLAIN BEARING

### 2 POST DIAGONAL ALL STEEL MODEL 2PD



- Catalog die sets can be ready to ship in 2-3 work days.
- Supplied with press fit guide pins and medium shoulder demountable steel bushings unless otherwise specified.
- To order specify quantity, model, die set number, pin length, & shank size if required. Shanks are located on center of both A & B dimensions.

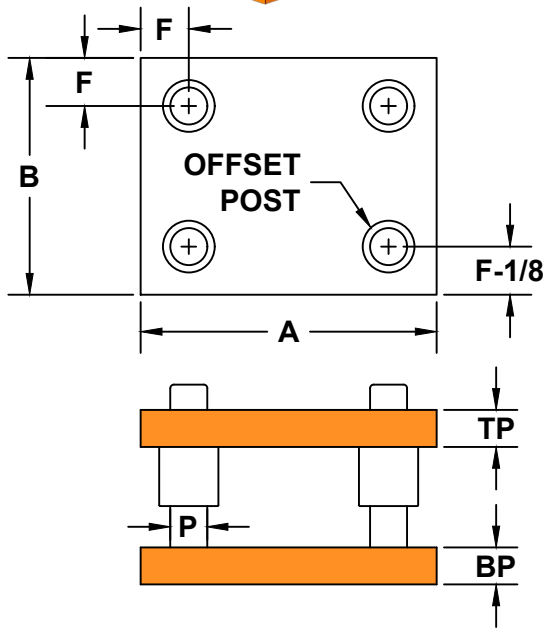
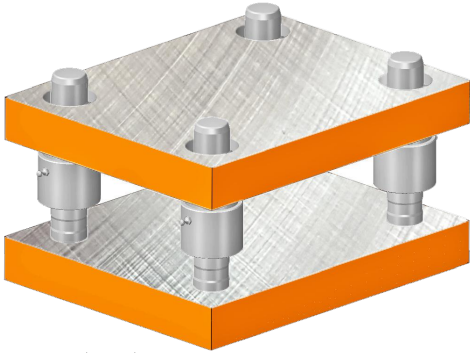
LEFT TO RIGHT <b>A</b>	FRONT TO BACK <b>B</b>	THICKNESS		DIE SET NUMBER	POST DIA <b>P</b>	POST DIA <b>O</b>	<b>F</b>
		TOP PLATE <b>TP</b>	BOT PLATE <b>BP</b>				
10"	8"	1-1/4	1-1/2	1008-24	1-1/4	1	1-5/8
		1-1/2	1-1/2	1008-44			
		1-1/2	1-3/4	1008-46			
		1-3/4	1-3/4	1008-66			
12"	10"	1-1/4	1-1/2	1210-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1210-44			
		1-1/2	1-3/4	1210-46			
		1-3/4	1-3/4	1210-66			
12"	12"	1-1/4	1-1/2	1212-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1212-44			
		1-1/2	1-3/4	1212-46			
		1-3/4	1-3/4	1212-66			
14"	10"	1-1/4	1-1/2	1410-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1410-44			
		1-1/2	1-3/4	1410-46			
		1-3/4	1-3/4	1410-66			
14"	12"	1-1/4	1-1/2	1412-24	1-1/2	1-1/4	1-3/4
		1-1/2	1-1/2	1412-44			
		1-1/2	1-3/4	1412-46			
		1-3/4	1-3/4	1412-66			
14"	14"	1-1/2	1-1/2	1414-44	1-3/4	1-1/2	1-7/8
		1-1/2	1-3/4	1414-46			
		1-3/4	1-3/4	1414-66			
		1-3/4	2	1414-68			
16"	12"	1-1/2	1-1/2	1612-44	1-3/4	1-1/2	1-7/8
		1-1/2	1-3/4	1612-46			
		1-3/4	1-3/4	1612-66			
		1-3/4	2	1612-68			
16"	14"	1-1/2	1-3/4	1614-46	2	1-3/4	2
		1-3/4	1-3/4	1614-66			
		1-3/4	2	1614-68			
		2	2	1614-88			
16"	16"	1-1/2	1-3/4	1616-46	2	1-3/4	2
		1-3/4	1-3/4	1616-66			
		1-3/4	2	1616-68			
		2	2	1616-88			
18"	12"	1-1/2	1-3/4	1812-46	2	1-3/4	2
		1-3/4	1-3/4	1812-66			
		1-3/4	2	1812-68			
		2	2	1812-88			
18"	14"	1-1/2	1-3/4	1814-46	2	1-3/4	2
		1-3/4	1-3/4	1814-66			
		1-3/4	2	1814-68			
		2	2	1814-88			
20"	14"	1-1/2	1-3/4	2014-46	2	1-3/4	2
		1-3/4	1-3/4	2014-66			
		1-3/4	2	2014-68			
		2	2	2014-88			

#### ORDER EXAMPLE:

QTY MODEL DIE SET# PIN LENGTH  
(1) 2PD - 1008-24 x 7

# CATALOG DIE SETS PLAIN BEARING

## 4 POST ALL STEEL MODEL 4P

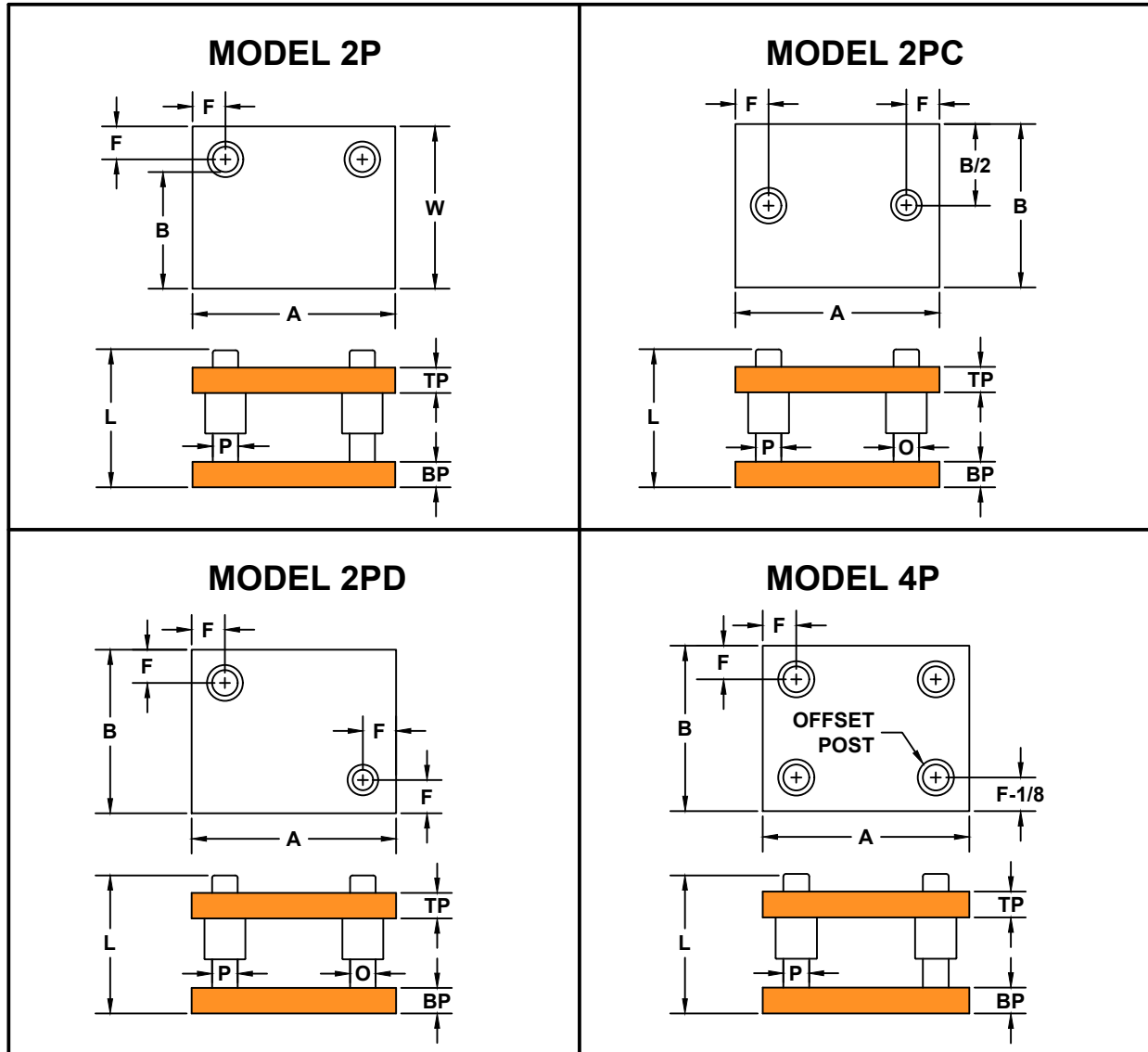


### ORDER EXAMPLE:

QTY MODEL DIE SET# PIN LENGTH  
(1) 4P - 1210-44 x 7

LEFT TO RIGHT <b>A</b>	FRONT TO BACK <b>B</b>	THICKNESS		DIE SET NUMBER	POST DIA <b>P</b>	<b>F</b>
		TOP PLATE <b>TP</b>	BOT PLATE <b>BP</b>			
8"	6"	1	1-1/4	806-02	1	1-1/4
		1-1/4	1-1/4	806-22		
		1-1/4	1-1/2	806-24		
		1-1/2	1-1/2	806-44		
10"	8"	1	1-1/4	1008-02	1	1-1/4
		1-1/4	1-1/4	1008-22		
		1-1/4	1-1/2	1008-24		
		1-1/2	1-1/2	1008-44		
10"	10"	1	1-1/4	1010-02	1	1-1/4
		1-1/4	1-1/4	1010-22		
		1-1/4	1-1/2	1010-24		
		1-1/2	1-1/2	1010-44		
12"	10"	1-1/4	1-1/4	1210-22	1-1/4	1-5/8
		1-1/4	1-1/2	1210-24		
		1-1/2	1-1/2	1210-44		
		1-1/2	1-3/4	1210-46		
12"	12"	1-1/4	1-1/2	1212-24	1-1/4	1-5/8
		1-1/2	1-1/2	1212-44		
		1-1/2	1-3/4	1212-46		
		1-3/4	1-3/4	1212-66		
14"	10"	1-1/4	1-1/2	1410-24	1-1/4	1-5/8
		1-1/2	1-1/2	1410-44		
		1-1/2	1-3/4	1410-46		
		1-3/4	1-3/4	1410-66		
14"	12"	1-1/4	1-1/2	1412-24	1-1/4	1-5/8
		1-1/2	1-1/2	1412-44		
		1-1/2	1-3/4	1412-46		
		1-3/4	1-3/4	1412-66		
14"	14"	1-1/2	1-1/2	1414-44	1-1/4	1-5/8
		1-1/2	1-3/4	1414-46		
		1-3/4	1-3/4	1414-66		
		1-3/4	2	1414-68		
16"	12"	1-1/2	1-1/2	1612-44	1-1/4	1-5/8
		1-1/2	1-3/4	1612-46		
		1-3/4	1-3/4	1612-66		
		1-3/4	2	1612-68		
16"	14"	1-1/2	1-1/2	1614-44	1-1/2	1-3/4
		1-1/2	1-3/4	1614-46		
		1-3/4	1-3/4	1614-66		
		1-3/4	2	1614-68		
18"	14"	1-1/2	1-3/4	1814-46	1-1/2	1-3/4
		1-3/4	1-3/4	1814-66		
		1-3/4	2	1814-68		
		2	2	1814-88		
18"	16"	1-1/2	1-3/4	1816-46	1-1/2	1-3/4
		1-3/4	1-3/4	1816-66		
		1-3/4	2	1816-68		
		2	2	1816-88		
20"	16"	1-1/2	1-3/4	2016-46	1-1/2	1-3/4
		1-3/4	1-3/4	2016-66		
		1-3/4	2	2016-68		
		2	2	2016-88		
20"	18"	1-1/2	1-3/4	2018-46	1-1/2	1-3/4
		1-3/4	1-3/4	2018-66		
		1-3/4	2	2018-68		
		2	2	2018-88		

Special die sets can be ordered in custom configurations up to 62" diagonally.



To order **PLAIN BEARING** special die sets, specify the following:

1. Quantity
2. Model
2. Material : Steel or Aluminum
3. Dimensions A, B, TP, BP, P, and L  
Specify O for Models 2PC & 2PD
4. Type of bushing - medium shoulder demountable steel bushings supplied unless otherwise specified
5. Diameter of threaded shank, if required. Shanks are located on center of both A & B dimensions. See page 16 for shank info

### PLAIN BEARING PIN LOCATIONS

WHEN P IS:	3/4	1	1-1/4	1-1/2	1-3/4	2	2-1/2	3
F IS:	1	1-1/4	1-5/8	1-3/4	1-7/8	2	2-1/2	2-3/4

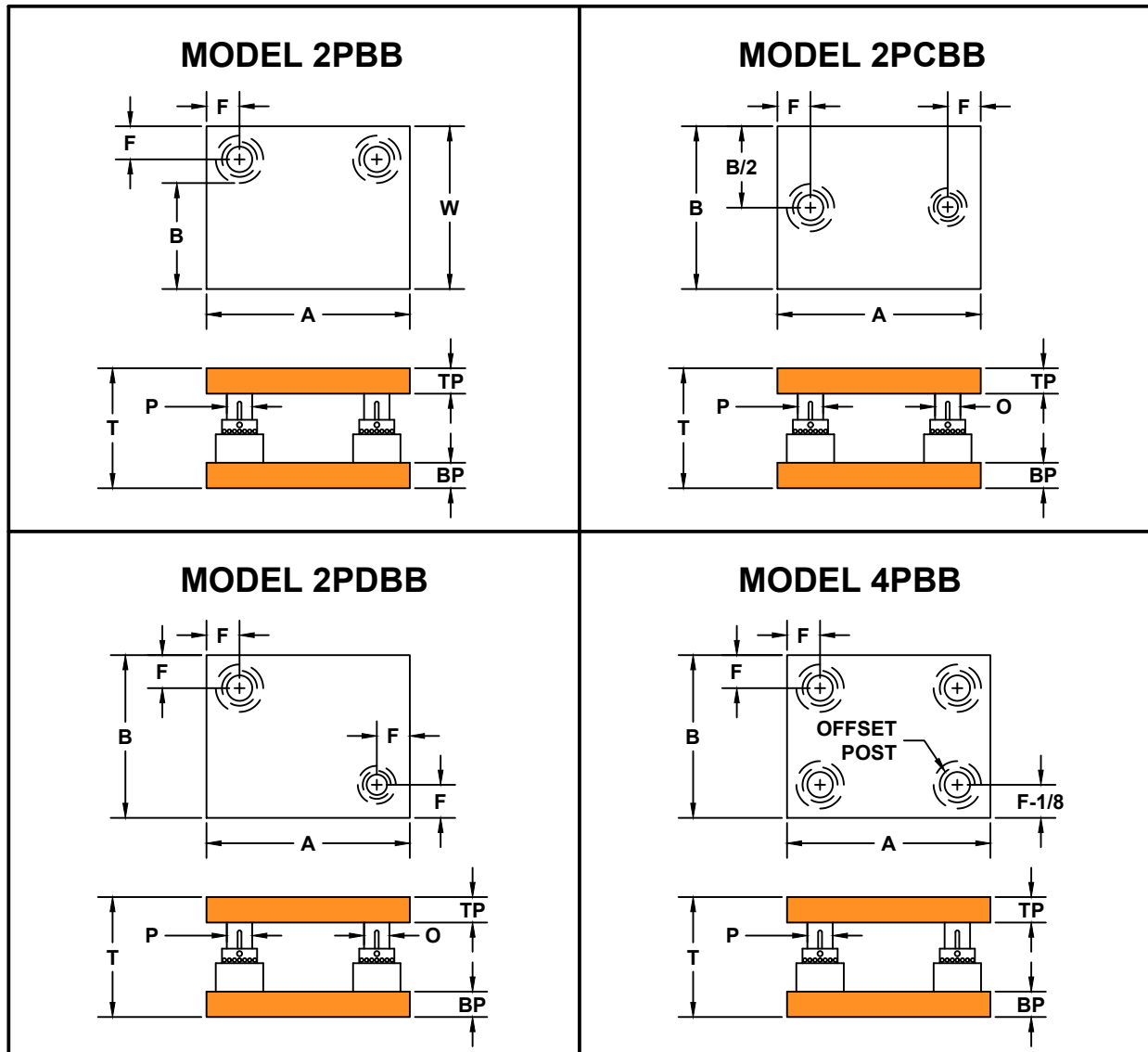
See page 10-12 for plain bearing guiding components and specifications



# BALL BEARING SPECIAL DIE SETS

# SPECIAL DIE SETS

Special die sets can be ordered in custom configurations up to 62" diagonally.



To order **BALL BEARING** special die sets, specify the following:

1. Quantity
2. Model
2. Material : Steel or Aluminum
3. Dimensions A, B, TP, BP, P, and T  
Specify O for Models 2PC & 2PD
4. Type of bushing - straight sleeve steel bushings supplied unless otherwise specified
5. Diameter of threaded shank, if required. Shanks are located on center of both A & B dimensions. See page 16 for shank info

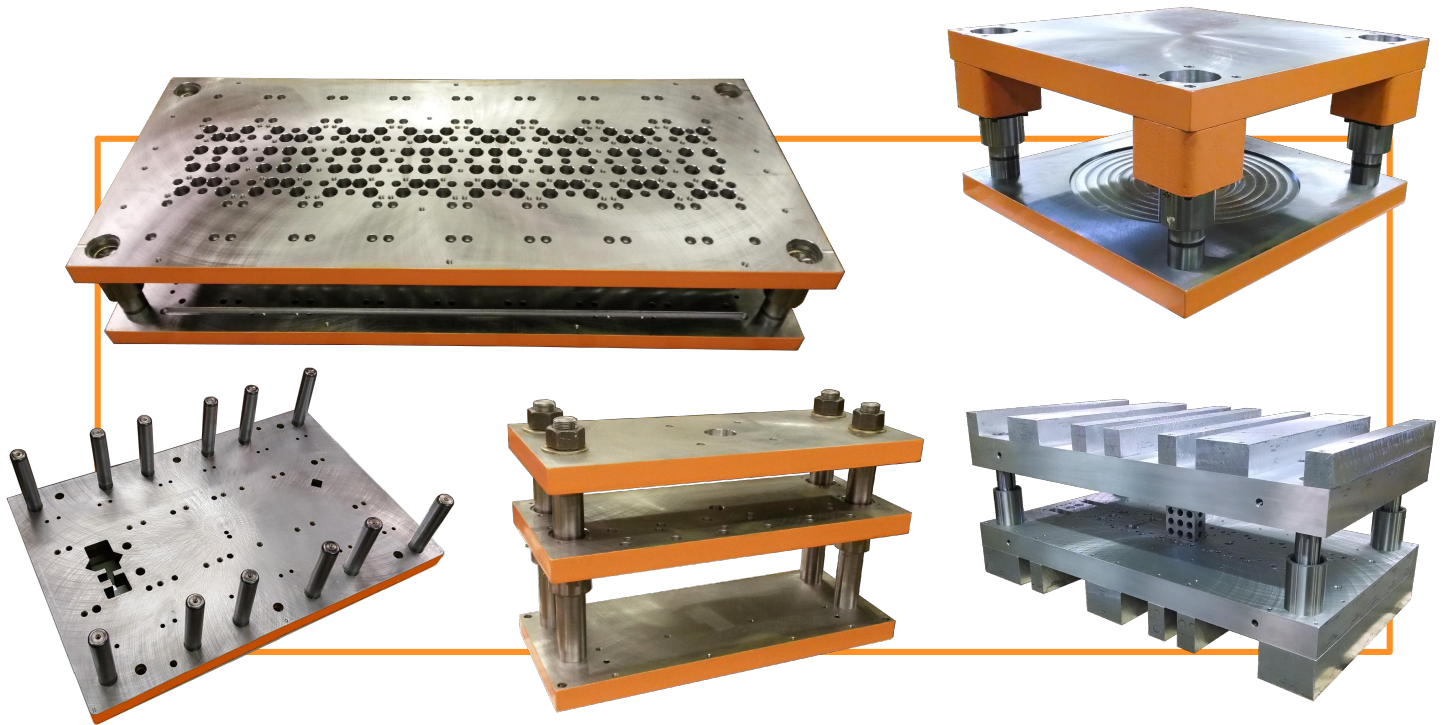
## BALL BEARING PIN LOCATIONS

WHEN P IS:	3/4	1	1-1/4	1-1/2	1-3/4	2	2-1/2	3
F IS:	1-1/4	1-1/2	1-3/4	2	2-1/8	2-3/8	2-5/8	3

See page 13-16 for ball bearing guiding components and specifications

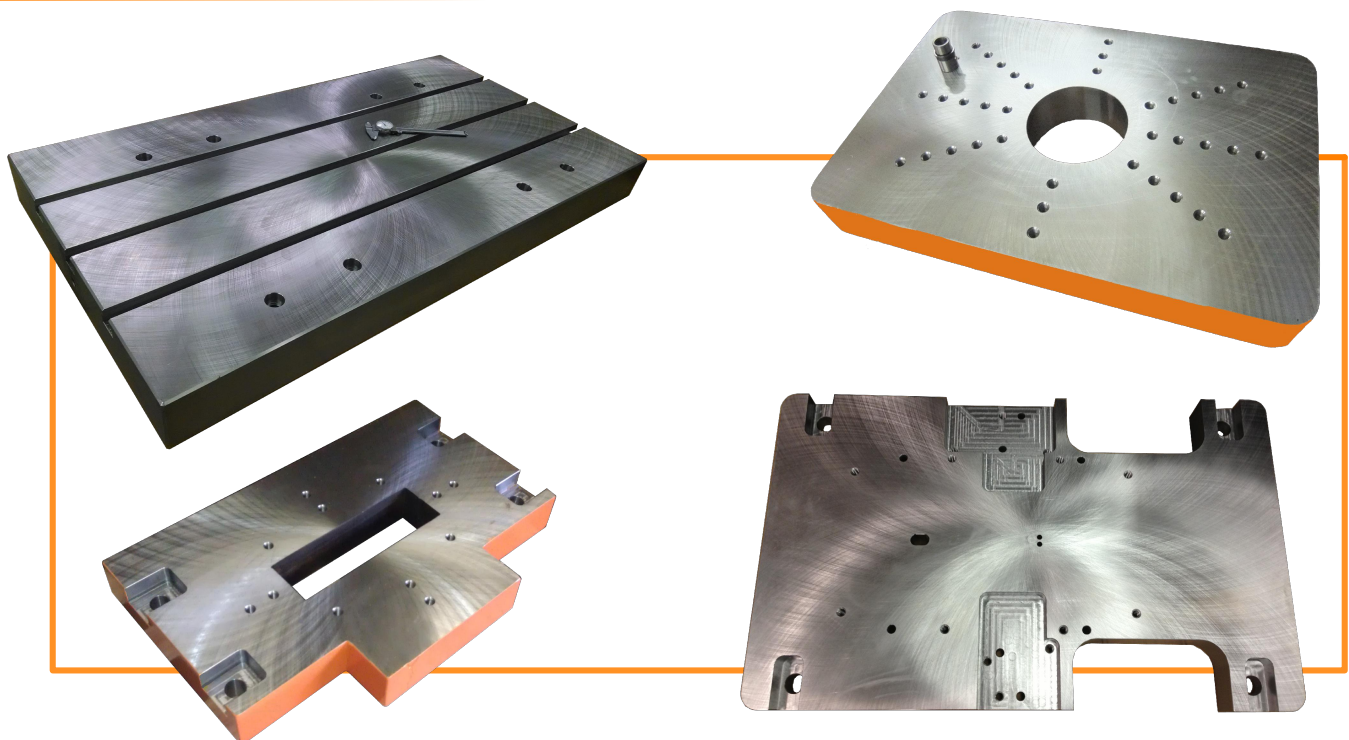
## MACHINED DIE SETS

**Die Sets, Inc.** can machine your die set to your exact specifications. Our computer aided manufacturing software accurately and efficiently machines features such as holes, pockets, keyways, milled edges, and slug cutouts. Send us your cad file or print, and we will quote you a finished die set ready to install your tooling.



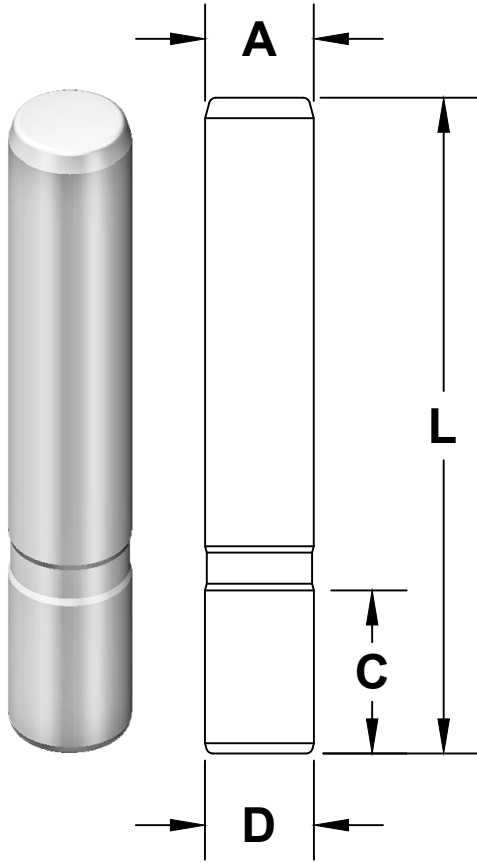
## PLATE PRODUCTS

**Die Sets, Inc.** supplies value added plate products in both steel and aluminum. We have the capability to torch cut, blanchard grind, stress relieve, and CNC machine to your specifications. Products include bolster plates, adapter plates, sub plates, and plates for custom applications.



# PLAIN BEARING PRESS FIT GUIDE POSTS

# GUIDING COMPONENTS



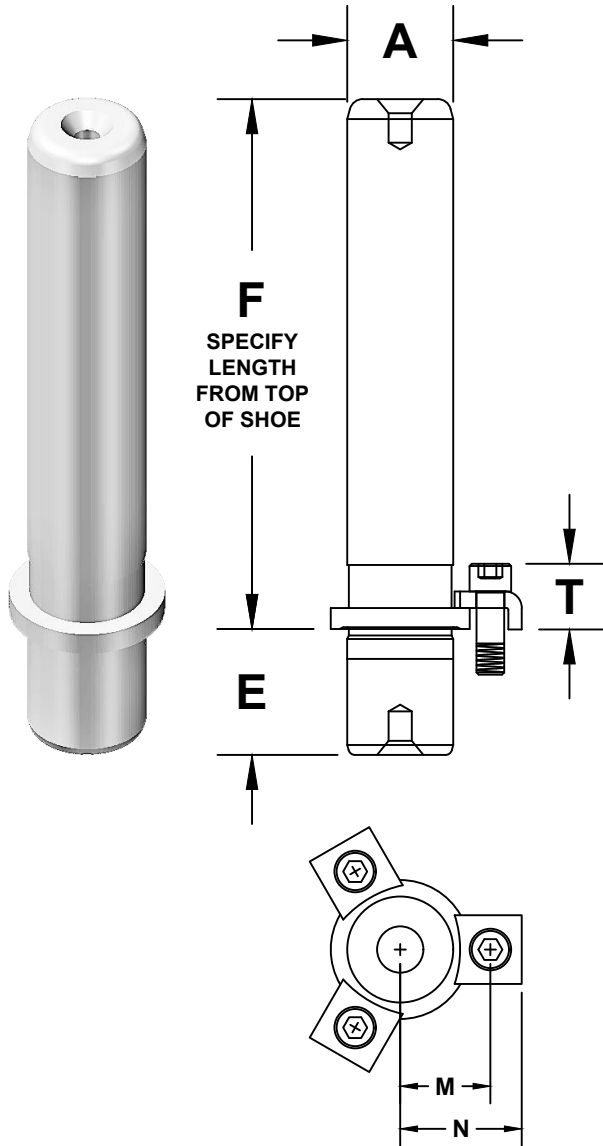
- HARDENED STEEL
- PRECISION GROUND FINISH
- AVAILABLE IN HARD CHROME FINISH UPON REQUEST

PIN DIAMETER A	LENGTH L	PRESS FIT D	PRESS FIT LENGTH C
3/4	3-1/2	.002	1-1/8
	4		
	4-1/4		
	4-1/2		
	4-3/4		
	5		
	5-1/2		
	6		
1	7	.002	1-1/2
	8		
	4		
	4-1/4		
	4-1/2		
	4-3/4		
	5		
	5-1/4		
	5-1/2		
	5-3/4		
	6		
	6-1/2		
1-1/4	7	.0025	1-3/4
	7-1/2		
	8		
	8-1/2		
	9		
	10		
	11		
	12		
	4-1/2		
	4-3/4		
	5		
	5-1/4		
5-1/2			
5-3/4			
1-1/2	6	.0025	1-3/4
	6-1/2		
	7		
	7-1/2		
	8		
	8-1/2		
	9		
	10		
	11		2
	12		
	13		
	14		
	15		

PIN DIAMETER A	LENGTH L	PRESS FIT D	PRESS FIT LENGTH C			
1-3/4	6	.0025	2-1/4			
	6-1/2					
	7					
	7-1/2					
	8					
	8-1/2					
	9					
	10					
	11					
	12					
	13					
	14					
	2			14	.0025	2-1/2
				15		
16						
17						
18						
19						
20						
6						
6-1/2						
7						
7-1/2						
2-1/2	8	.003	3-1/2			
	8-1/2					
	9					
	10					
	11					
	12					
	13					
	14					
	17					
	20					
3	8	.003	3-1/2			
	8-1/2					
	9					
	10					
	11					
	12					
	13					
	14					

# GUIDING COMPONENTS

# PLAIN BEARING DEMOUNTABLE GUIDE POSTS



**PIN CLAMPS**

DIAMETER <b>A</b>	CLAMP SIZE	QTY PER PIN	RADIUS <b>M</b>	RADIUS <b>N</b>	LENGTH <b>T</b>
1	1/4	3	13/16	1-1/8	39/64
1-1/4	5/16	3	63/64	1-25/64	3/4
1-1/2	5/16	3	1-1/8	1-17/32	3/4
1-3/4	5/16	4	1-19/64	1-45/64	3/4
2	5/16	4	1-27/64	1-53/64	3/4
2-1/2	5/16	4	1-43/64	2-5/64	3/4
3	5/16	4	1-59/64	2-21/64	3/4

Demountable guide posts are supplied with clamps and screws

PIN DIAMETER <b>A</b>	LENGTH <b>F</b>	LENGTH <b>E</b>
1	2-1/2	1-3/16
	2-3/4	
	3	
	3-1/4	
	3-1/2	
	3-3/4	
	4	
	4-1/4	
	4-1/2	
	5	
	5-1/2	
	6	
	6-1/2	
	7	
1-1/4	2-3/4	1-3/16
	3	
	3-1/4	
	3-1/2	
	3-3/4	
	4	
	4-1/4	
	4-3/4	
	5-1/4	
	5-3/4	
	6-1/4	
	6-3/4	
	7-1/4	
	8-1/4	
1-1/2	2-3/4	1-9/16
	3	
	3-1/4	
	3-1/2	
	3-3/4	
	4	
	4-1/4	
	4-3/4	
	5-1/4	
	5-3/4	
	6-1/4	
	6-3/4	
	7-1/4	
	8-1/4	
9-1/4		
1-3/4	3-1/2	1-11/16
	4	
	4-1/2	
	5	
	5-1/2	
	6	
	6-1/2	
	7-1/2	
	8-1/2	
	9-1/2	
	11-1/2	

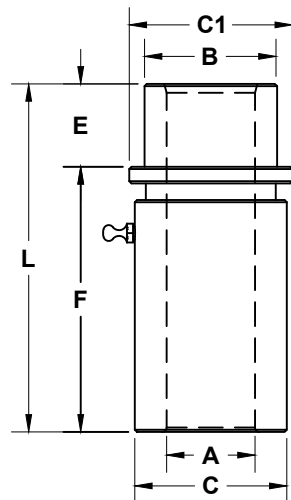
PIN DIAMETER <b>A</b>	LENGTH <b>F</b>	LENGTH <b>E</b>
2	5	1-15/16
	5-1/2	
	6	
	6-1/2	
	7-1/2	
	8-1/2	
	9-1/2	
	10-1/2	
	11-1/2	
	14-1/2	
	17-1/2	
2-1/2	4-1/2	1-15/16
	5	
	5-1/2	
	6-1/2	
	7-1/2	
	8-1/2	
	9-1/2	
	10-1/2	
	13-1/2	
	16-1/2	
	17-1/2	
3	4-1/2	2-7/16
	5	
	5-1/2	
	6-1/2	
	7-1/2	
	8-1/2	
	9-1/2	
	10-1/2	
	13-1/2	
	16-1/2	
	17-1/2	

- **HARDENED STEEL**
- **PRECISION GROUND FINISH**
- **HARD CHROME FINISH IS STANDARD ON DEMOUNTABLE PINS**

# PLAIN BEARING DEMOUNTABLE BUSHINGS

# GUIDING COMPONENTS

## LONG SHOULDER

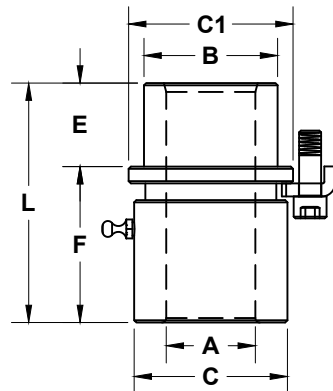
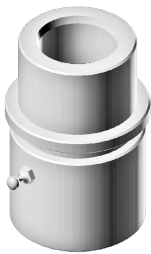


## LONG SHOULDER

INSIDE DIAMETER A	B	C	C1	E	F	L
1	1-1/2	1.720	1.845	15/16	3	3-15/16
1-1/4	1-3/4	1.940	2.095	1-1/8	3	4-1/8
1-1/2	2	2.190	2.345	1-3/16	3	4-3/16
1-3/4	2-1/4	2.503	2.658	1-3/8	3	4-3/8
2	2-1/2	2.909	3.064	1-5/8	3	4-5/8
2-1/2	3-1/4	3.659	3.814	1-7/8	3	4-7/8
3	3-3/4	4.190	4.283	1-7/8	3	4-7/8

AVAILABLE IN STEEL & BRONZE PLATED

## MEDIUM SHOULDER



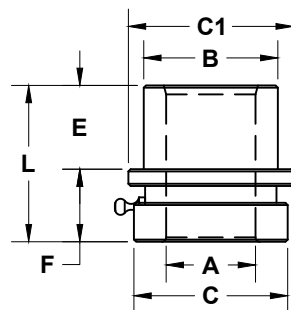
## MEDIUM SHOULDER

INSIDE DIAMETER A	B	C	C1	E	F	L
3/4 †	1-1/8	1.175	1.300	11/16	1-3/4	2-7/16
1	1-1/2	1.720	1.845	15/16	1-3/4	2-11/16
1-1/4	1-3/4	1.940	2.095	1-1/8	2	3-1/8
1-1/2	2	2.190	2.345	1-3/16	2	3-3/16
1-3/4	2-1/4	2.503	2.658	1-3/8	2	3-3/8
2	2-1/2	2.909	3.064	1-5/8	2	3-5/8
2-1/2	3-1/4	3.659	3.814	1-7/8	2-1/2	4-3/8
3	3-3/4	4.190	4.283	1-7/8	2-1/2	4-3/8

AVAILABLE IN STEEL, BRONZE, BRONZE PLATED, & BRONZE WITH SELF LUBRICATING GRAPHITE PLUGS

† AVAILABLE IN STEEL ONLY

## SHORT SHOULDER



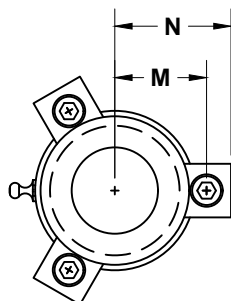
## SHORT SHOULDER

INSIDE DIAMETER A	B	C	C1	E	F	L
3/4 †	1-1/8	1.175	1.300	11/16	3/4	1-7/16
1	1-1/2	1.720	1.845	15/16	13/16	1-3/4
1-1/4	1-3/4	1.940	2.095	1-1/8	13/16	1-15/16
1-1/2	2	2.190	2.345	1-3/16	13/16	2
1-3/4	2-1/4	2.503	2.658	1-3/8	1	2-3/8
2	2-1/2	2.909	3.064	1-5/8	1	2-5/8
2-1/2	3-1/4	3.659	3.814	1-7/8	1	2-7/8
3	3-3/4	4.190	4.283	1-7/8	1	2-7/8

AVAILABLE IN STEEL & BRONZE PLATED

† AVAILABLE IN STEEL ONLY

Bushings are supplied with clamps and screws

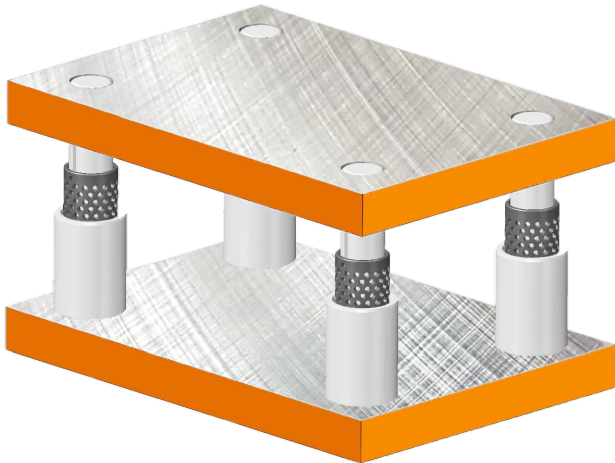


## BUSHING CLAMPS

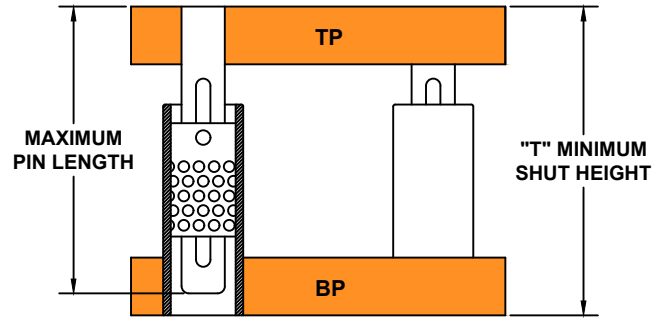
INSIDE DIAMETER A	CLAMP SIZE	QTY PER BUSHING	RADIUS M	RADIUS N
3/4	1/4S	2	.78	1.01
1	1/4	2	1.06	1.35
1-1/4	1/4	3	1.19	1.48
1-1/2	1/4	3	1.31	1.60
1-3/4	1/4	4	1.46	1.75
2	5/16	4	1.70	2.02
2-1/2	5/16	4	2.08	2.39
3	5/16	4	2.31	2.63

# GUIDING COMPONENTS

# BALL BEARING GUIDING COMPONENT SELECTION

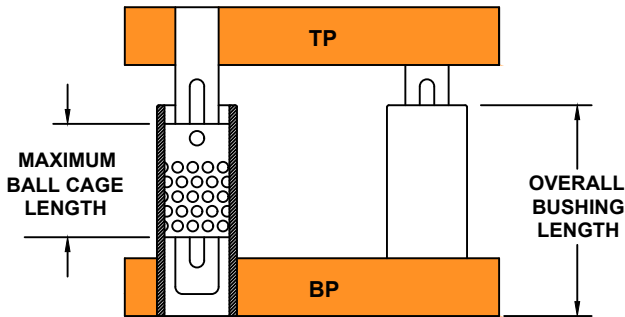


## MAXIMUM PIN LENGTH



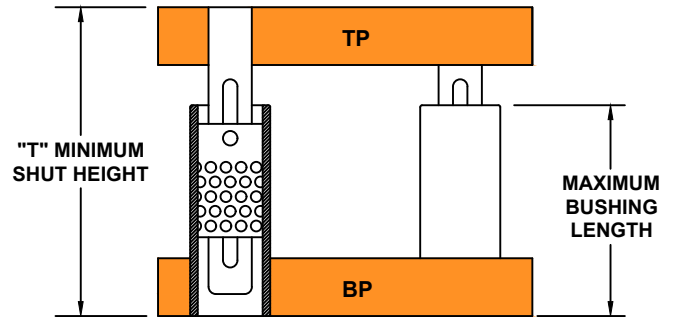
$$\text{MAXIMUM PIN LENGTH} = \text{MINIMUM SHUT HEIGHT} - 1/2"$$

## MAXIMUM BALL CAGE LENGTH



$$\text{MAXIMUM BALL CAGE LENGTH} = \text{OVERALL BUSHING LENGTH} - 1/2"$$

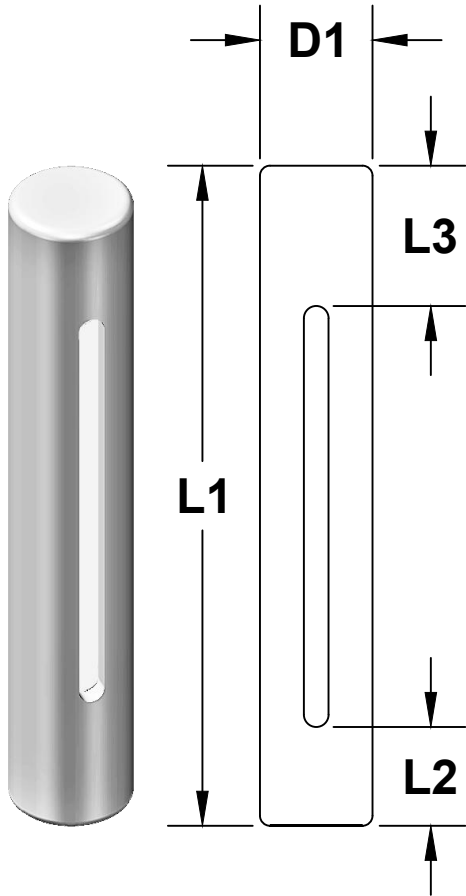
## MAXIMUM STRAIGHT SLEEVE BUSHING LENGTH



$$\text{MAXIMUM BUSHING LENGTH} = \text{MINIMUM SHUT HEIGHT} - \text{TP THICKNESS} - 1/2"$$

See page 14-16 for ball bearing guiding components and specifications

# BALL BEARING PRESS FIT GUIDE POSTS



- HARDENED STEEL
- PRECISION GROUND FINISH
- A MACHINED SLOT MAINTAINS TRAVEL OF THE BALL CAGE
- L2 SPECIFIES STANDARD WORKING END OF POST

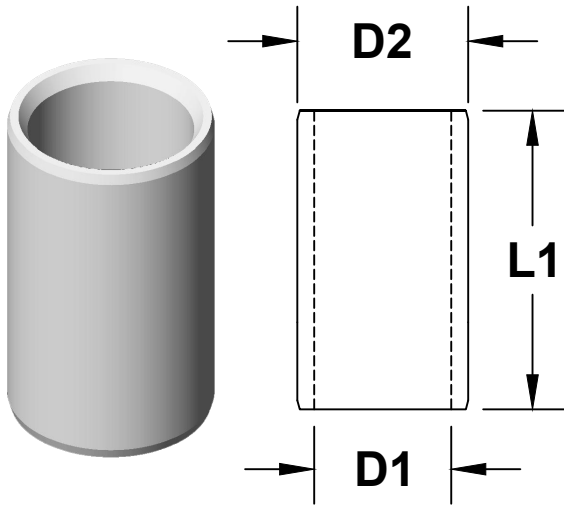
NOM PIN DIA	NOM LENGTH	D1	L1	L2	L3
3/4	3	.7530 .7527	2.875	.625	.813
	3-1/4		3.125		
	3-1/2		3.375		
	3-3/4		3.625		
	4		3.875		
	4-1/4		4.125		
	4-1/2		4.375		
	4-3/4		4.625		
	5		4.875		
	5-1/2		5.375		
1	6	1.0030 1.0027	5.875	.875	1.000
	3-3/4		3.625		
	4		3.875		
	4-1/4		4.125		
	4-1/2		4.375		
	4-3/4		4.625		
	5		4.875		
	5-1/4		5.125		
	5-1/2		5.375		
	5-3/4		5.625		
	6		5.875		
	6-1/2		6.375		
	7		6.875		
	7-1/2		7.375		
8	7.875				
1-1/4	8-1/2	1.2530 1.2526	8.375	1.000	1.375
	9		8.875		
	4-1/2		4.375		
	4-3/4		4.625		
	5		4.875		
	5-1/4		5.125		
	5-1/2		5.375		
	5-3/4		5.625		
	6		5.875		
	6-1/2		6.375		
	7		6.875		
	7-1/2		7.375		
8	7.875				
8-1/2	8.375				
1-1/2	9	1.5030 1.5026	8.875	1.125	1.750
	10		9.875		
	11		10.875		
	12		11.875		
	4-1/2		4.375		
	4-3/4		4.625		
	5		4.875		
	5-1/4		5.125		
	5-1/2		5.375		
	5-3/4		5.625		
	6		5.875		
	6-1/2		6.375		
	7		6.875		
	7-1/2		7.375		
8	7.875				
8-1/2	8.375				
2	9	2.0031 2.0026	8.875	1.250	1.563
	10		9.875		
	11		10.875		
	12		11.875		
	13		12.875		
	14		13.875		
	15		14.875		
	16		15.875		
	17		16.875		
	18		17.875		
	8		7.875		
	8-1/2		8.375		
	9		8.875		
	10		9.875		
11	10.875				
12	11.875				
13	12.875				
14	13.875				
15	14.875				
16	15.875				
17	16.875				
18	17.875				
2-1/2	8	2.5031 2.5026	7.875	1.375	2.000
	8-1/2		8.375		
	9		8.875		
	10		9.875		
	11		10.875		
	12		11.875		
	13		12.875		
	14		13.875		
	15		14.875		
	16		15.875		
	17		16.875		
	18		17.875		
	19		18.875		
	20		19.875		
8	7.875				
8-1/2	8.375				
9	8.875				
10	9.875				
11	10.875				
12	11.875				
13	12.875				
14	13.875				
15	14.875				
16	15.875				
17	16.875				
18	17.875				
3	8	3.0031 3.0025	7.875	1.625	2.500
	8-1/2		8.375		
	9		8.875		
	10		9.875		
	11		10.875		
	12		11.875		
	13		12.875		
	14		13.875		
	15		14.875		
	16		15.875		
	17		16.875		
	18		17.875		
	19		18.875		
	20		19.875		

# GUIDING COMPONENTS

NOM PIN DIA	NOM LENGTH	D1	L1	L2	L3
1-3/4	5	1.7530 1.7525	4.875	.875	1.000
	5-1/4		5.125		
	5-1/2		5.375		
	5-3/4		5.625		
	6		5.875		
	6-1/4		6.125		
	6-1/2		6.375		
	7		6.875		
	7-1/2		7.375		
	8		7.875		
	8-1/2		8.375		
	9		8.875		
	9-1/2		9.375		
	10		9.875		
	10-1/2		10.375		
	11		10.875		
	2		11-1/2		
12		11.875			
12-1/2		12.375			
13		12.875			
14		13.875			
15		14.875			
16		15.875			
17		16.875			
18		17.875			
5-1/2		5.375			
5-3/4		5.625			
6		5.875			
6-1/4		6.125			
6-1/2		6.375			
6-3/4		6.625			
7		6.875			
7-1/4		7.125			
7-1/2		7.375			
7-3/4	7.625				
8	7.875				
8-1/2	8.375				
9	8.875				
9-1/2	9.375				
10	9.875				
10-1/2	10.375				
11	10.875				
11-1/2	11.375				
12	11.875				
12-1/2	12.375				
13	12.875				
14	13.875				
15	14.875				
16	15.875				
17	16.875				
18	17.875				
2-1/2	8	2.5031 2.5026	7.875	1.250	1.563
	8-1/2		8.375		
	9		8.875		
	10		9.875		
	11		10.875		
	12		11.875		
	13		12.875		
	14		13.875		
	15		14.875		
	16		15.875		
	17		16.875		
3	8	3.0031 3.0025	7.875	1.250	1.563
	8-1/2		8.375		
	9		8.875		
	10		9.875		
	11		10.875		
	12		11.875		
	13		12.875		
	14		13.875		
	15		14.875		
	16		15.875		
	17		16.875		

# GUIDING COMPONENTS

# BALL BEARING STRAIGHT SLEEVE BUSHINGS



- HARDENED STEEL
- PRECISION GROUND FINISH
- STRAIGHT SLEEVE BUSHINGS ARE INSTALLED WITH HIGH STRENGTH RETAINING COMPOUND INSTEAD OF PRESS FITTING

NOM PIN DIA	NOM LENGTH	D1	D2	L1
3/4	1.3/4	1.1269 1.1266	1.3872 1.3867	1.625
	2			1.875
	2-1/4			2.125
	2-1/2			2.375
	2-3/4			2.625
	3			2.875
	3-1/4			3.125
	3-1/2			3.375
	3-3/4			3.625
	4			3.875
	4-1/2			4.375
	5			4.875
6	5.875			
1	2	1.3769 1.3766	1.7172 1.7167	1.875
	2-1/4			2.125
	2-1/2			2.375
	2-3/4			2.625
	3			2.875
	3-1/4			3.125
	3-1/2			3.375
	3-3/4			3.625
	4			3.875
	4-1/4			4.125
	4-1/2			4.375
	4-3/4			4.625
	5			4.875
	5-1/2			5.375
6	5.875			
6-1/2	6.375			
7	6.875			

NOM PIN DIA	NOM LENGTH	D1	D2	L1
1-1/4	2-1/2	1.6266 1.6263	2.1072 2.1067	2.375
	2-3/4			2.625
	3			2.875
	3-1/4			3.125
	3-1/2			3.375
	3-3/4			3.625
	4			3.875
	4-1/4			4.125
	4-1/2			4.375
	4-3/4			4.625
	5			4.875
	5-1/2			5.375
	6			5.875
	6-1/2			6.375
	7			6.875
	8			7.875
	9			8.875
	1-1/2			3
3-1/4		3.125		
3-1/2		3.375		
3-3/4		3.625		
4		3.875		
4-1/4		4.125		
4-1/2		4.375		
4-3/4		4.625		
5		4.875		
5-1/4		5.125		
5-1/2		5.375		
6		5.875		
6-1/2		6.375		
7		6.875		
7-1/2	7.375			
8	7.875			
8-1/2	8.375			
9	8.875			
10	9.875			
10-1/2	10.375			
11	10.875			
12	11.875			
1-3/4	3	2.1266 2.1263	2.7472 2.7467	2.875
	3-1/2			3.375
	3-3/4			3.625
	4			3.875
	4-1/4			4.125
	4-1/2			4.375
	4-3/4			4.625
	5			4.875
	5-1/4			5.125
	5-1/2			5.375
	6			5.875
	6-1/2			6.375
	7			6.875
	7-1/2			7.375
8	7.875			
8-1/2	8.375			
9	8.875			
9-1/2	9.375			
10	9.875			
10-1/2	10.375			
11	10.875			
12	11.875			
13	12.875			

NOM PIN DIA	NOM LENGTH	D1	D2	L1
2	3	2.5016 2.5013	3.1622 3.1617	2.875
	3-1/2			3.375
	3-3/4			3.625
	4			3.875
	4-1/4			4.125
	4-1/2			4.375
	4-3/4			4.625
	5			4.875
	5-1/4			5.125
	5-1/2			5.375
	6			5.875
	6-1/2			6.375
	7			6.875
	7-1/2			7.375
8	7.875			
8-1/2	8.375			
9	8.875			
9-1/2	9.375			
10	9.875			
10-1/2	10.375			
11	10.875			
12	11.875			
13	12.875			
14	13.875			
2-1/2	5-1/2	3.0016 3.0013	3.6822 3.6817	5.375
	6			5.875
	6-1/2			6.375
	7			6.875
	7-1/2			7.375
	8			7.875
	8-1/2			8.375
	9			8.875
	9-1/2			9.375
	10			9.875
	10-1/2			10.375
	11			10.875
	12			11.875
	13			12.875
14	13.875			
3	6	3.5016 3.5013	4.1822 4.1817	5.875
	6-1/2			6.375
	7			6.875
	7-1/2			7.375
	8			7.875
	8-1/2			8.375
	9			8.875
	9-1/2			9.375
	10			9.875
	10-1/2			10.375
	11			10.875
	12			11.875
	13			12.875
	14			13.875

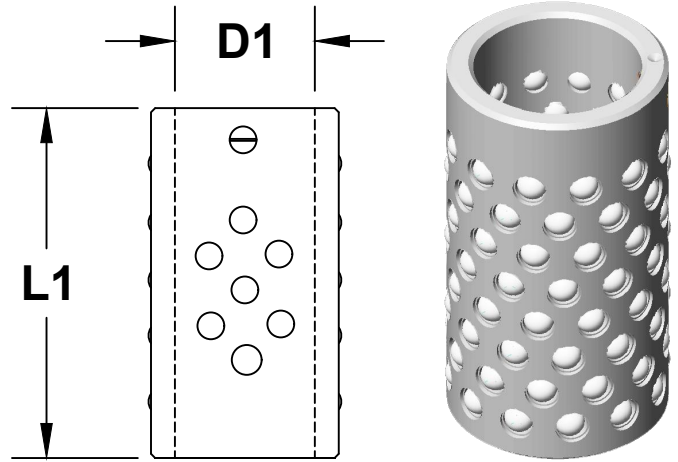


# BALL BEARING CAGES

NOM PIN DIA <b>D1</b>	LENGTH <b>L1</b>
3/4	1.50
	1.75
	2.00
	2.25
	2.50
1	1.50
	1.75
	2.00
	2.25
1-1/4	2.00
	2.25
	2.50
	2.75
	3.00
1-1/2	2.50
	2.75
	3.00
	3.25
	3.50

NOM PIN DIA <b>D1</b>	LENGTH <b>L1</b>
1-3/4	2.75
	3.00
	3.25
	3.50
	3.75
	4.00
2	4.25
	3.25
	3.50
	3.75
	4.00
	4.25
2-1/2	4.50
	4.50 †
	4.50
	5.00
	5.50 †
	6.00
3	6.25 †
	6.50
	7.00
	5.00
	6.00

† ROTATING CAGE NOT AVAILABLE



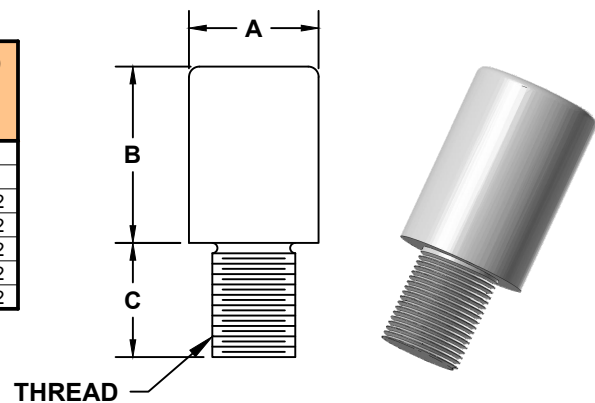
- HEAT TREATED ALUMINUM ALLOY CAGE
- AAA1 GRADE BALL BEARINGS
- FASTENS TO GUIDE POST WITH SET SCREW
- AVAILABLE IN NON-ROTATING AND ROTATING STYLES

NOTE - In a preload operating condition, rotating cages will only move vertically

# PUNCH SHANKS

**Punch shanks** are made from cold rolled steel. They are installed in the upper shoe, and locked in place with a set screw. Specify thread length "C" with order. Custom sizes are available upon request.

SHANK DIAMETER <b>A</b>	SHANK LENGTH <b>B</b>	THREAD <b>C</b>
13/16	1-1/2	5/8-18
1	1-1/2	3/4-16
1-1/2	2-1/8	1-1/4-12
1-9/16	2-1/8	1-1/4-12
2	2-7/8	1-1/4-12
2-1/2	2-7/8	1-1/4-12
3	2-7/8	1-1/4-12



## DIE SET STANDARDS

Flatness Plates .001 per lineal foot

Parallelism Plates .001 per lineal foot

Thickness Plates  $+1/16 - 1/8$

Shank Diameter  $+.000 - .005$

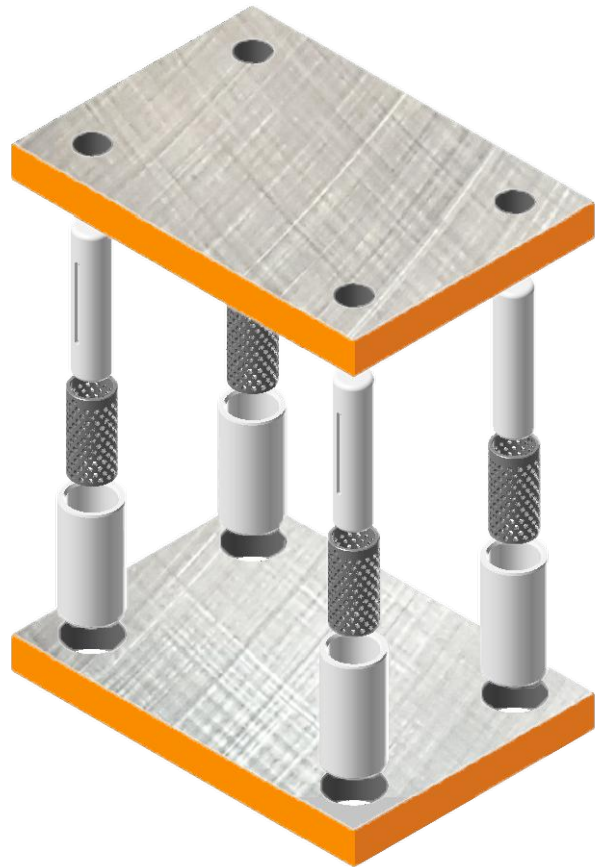
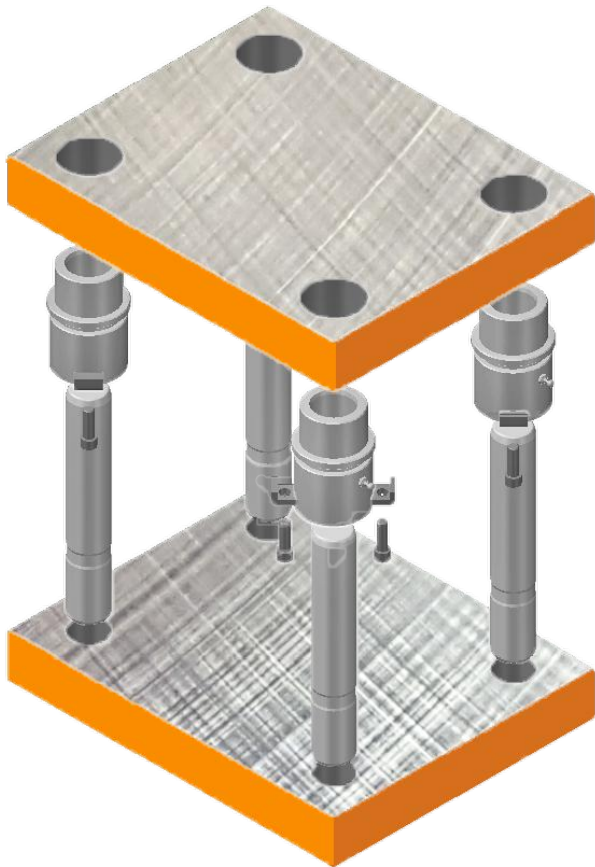
Guide Pin Squareness .001 in 6 inches

Guide Pin Parallelism .001 in 6 inches

Guide Bushing Squareness .001 in 6 inches

Guide Bushing Parallelism .001 in 6 inches

Parallelism Assembled Die Set .002 per lineal foot





# ***DIE SETS, INC.***

221 NIBERT ROAD  
INDIANA, PA 15701  
PHONE 724-463-8800  
TOLL FREE 800-544-9880  
FAX 724-463-6179  
[WWW.DIESETSINC.COM](http://WWW.DIESETSINC.COM)  
[QUOTES@DIESETSINC.COM](mailto:QUOTES@DIESETSINC.COM)