



# Pillow Block & Flange Block Assemblies



# Standard and Custom Designed GRAPHALLOY Products Since 1913



**GRAPHALLOY**", a graphite metal alloy, is a dry, selflubricating alloy with a low coefficient of friction. **GRAPHALLOY** bushings provide lifetime cost and operating advantages over other bushing/bearing materials.

**GRAPHALLOY** bushings reduce maintenance and downtime. They are longwearing and never need lubrication. **GRAPHALLOY** is not simply a surface coating, so its selflubricating properties do not deteriorate. **GRAPHALLOY** bushings keep products free of contamination and can be used safely in combustible atmospheres because they

use no oil, do not attract dust or foreign matter, and do not spark.

**GRAPHALLOY** bushings work where others won't. You can replace ball bearings, metal and plastic bushings, and plain molded carbon bushings with **GRAPHALLOY** bushings. You'll enjoy years of trouble free operation in applications such as...

- Ovens/Furnaces
- Cement Kilns
- Conveyors
- Plating Tanks
- Dryers (Veneer, Plywood, Board)
- Dampers/Louvers
- Submersed Screens
- And Many Others...

**GRAPHALLOY** is ideally suited to applications where temperatures are too high to permit the use of oil or other lubricants. It will not soften at high temperatures or extrude under load. Our standard grades are suitable for temperatures to 750! F in air (except for babbitt) and higher in nonoxidizing atmospheres. And, **GRAPHALLOY** bushings are also suitable for low temperature (450! F) applications because there are no lubricants to congeal or solidify.

**GRAPHALLOY** is not soluble in most industrial liquids. **GRAPHALLOY** bushings are used in water, hydrocarbons, chemical and fuel oil pumps, meters, mixers, and rotary filters. **GRAPHALLOY** is also use extensively for submerged bushings in cleaning

bushings extensively. GRAPHALLOY has been saving maintenance dollars in bull screens, line conveyors, washers, mixers, scrap burners, bleach tanks, fourdriniers, and pumps anywhere that bearings are subjected to difficult operating conditions! Grooves can be specified in the ID of submerged bushings so that gritty material can be washed away from the bearing surface. In particularly severe applications, clean water or pumpage can be injected into the bushing.

**GRAPHALLOY** bushings are available in over 100 grades of material with specific properties that meet a wide range of engineering solutions and specifications. Our commonly used GRAPHALLOY materials are babbitt, copper, bronze, silver, and nickel. We also offer FDA accepted grades for food contact equipment. All of our Pillow Block and Flange Block assemblies are equipped with a GRAPHALLOY bushing designed for longlife operation. They are easy to install and will operate successfully for long periods under various conditions. Depending on the application, our Pillow Blocks and Flange Blocks are available in either....

1. Solid: Type 163, 563, and 963
2. Split: Type 163S, 414, 475, and 478
3. SelfAligning: Type 327, 675, 414, 475, 478, 448, 318, 517 (Static) ;
4. Cast Iron: All except 327, 318, and 963
5. Stainless Steel: 327, 318, and 963
6. TwoBolt, ThreeBolt, or FourBolt arrangement depending on type

**For various applications involving different speed and load conditions we recommend using....**

<b>Conditions</b>	<b>Pillow Block/Flange Block Type</b>
High Speed/High Load	163, 414, 475, 478, 448, 563, 963
High Speed/Low Load	163, 163S, 563, 963
Low Speed/High Load	414/475, 478, 448, 563, 963
Low Speed/Low Load	All Types

**GRAPHALLOY** Pillow Block and Flange Block assemblies eliminate maintenance and frequent replacements, providing increased reliability and many years of troublefree operation. For longest life and smoothest operation of the GRAPHALLOY bushing, we recommend a coldrolled steel smooth finish of 8 to 16 microinch and a hardened shaft of R/C 5560. Metric and shaft sizes not shown can easily be accommodated.

**If you need help to engineer solutions for your particular application, please call us for help in solving your bushing/bearing problems. We will require information such as:**

1. Shaft and housing dimensions
2. Speed
3. Load per bushing
4. Temperature
5. If submerged, in what solution
6. Equipment



Applications listed are typical for the product. Many other applications can be found.

Shaft sizes other than the standard shaft sizes listed are also available.

DESCRIPTION		PAGE	STANDARD SHAFT SIZES
<b>TYPE 327</b>		<b>Two-Bolt Self-Aligning Pillow Block with Stainless Steel Housing</b> <b>Applications:</b> fourdrinier machines, paper-drying arch dryers, single-pass dryers, vertical mounting pass dryers, can coating dryers, multideck dryers	<b>4</b> 1 -- 1-1/2
<b>TYPE 675</b>		<b>Two-Bolt Self-Aligning Pillow Block with Plated Carbon Steel Housing</b> <b>Applications:</b> fourdrinier machines, paper-drying arch dryers, single-pass dryers, vertical mounting pass dryers, can coating dryers, multideck dryers	<b>5</b> 1/2 -- 1-1/2
<b>TYPE 318</b>		<b>Four-Bolt Self-Aligning Flange Block with Stainless Steel Housing</b> <b>Applications:</b> damper, louver, and shutter installations	<b>6</b> 1 -- 1-1/2
<b>TYPE 517</b>		<b>Three-Bolt Flange Block with Static Self-Alignment and Plated Carbon Steel Housing</b> <b>Applications:</b> damper, louver, and shutter installations	<b>7</b> 1/2 -- 2-1/2
<b>TYPE 163</b>		<b>Two-Bolt Pillow Block with Cast Iron Housing</b> <b>Applications:</b> ovens, drag-line conveyors, damper process equipment, plating tanks	<b>8</b> 3/8 -- 3-7/16
<b>TYPE 563</b>		<b>Four-Bolt Flange Block with Cast Iron Housing</b> <b>Applications:</b> ovens, drag-line conveyors, dampers, process equipment, plating tanks	<b>9</b> 1/2 -- 3-3/4
<b>TYPE 963</b>		<b>Two-Bolt Pillow Block with Stainless Steel Housing</b> <b>Applications:</b> in textile industry for bleaching, dyeing, and mercerizing, both submerged and above the solution	<b>10</b> 3/8 -- 2-1/2
<b>TYPE 448</b>		<b>Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing</b> <b>Applications:</b> veneer dryers, plywood dryers, board dryers, oven conveyors	<b>10</b> 1 -- 3
<b>TYPE 448</b>		<b>Four-Bolt Self-Aligning Flange Block with Cast Iron Housing</b> <b>Applications:</b> veneer dryers, plywood dryers, board dryers, oven conveyors	<b>11</b> 1 -- 3
<b>TYPE 448</b>		<b>Spherical Bushing Assemblies</b> <b>Applications:</b> spherical inserts for standard 448 pillow and flange block assemblies	<b>11</b> 1 -- 3

STANDARD SHAFT SIZES	PAGE	D E S C R I P T I O N	
1/2 -- 3	12	<b>Spherical Inserts for Standard Pillow and Flange Blocks</b> <b>Applications:</b> inserts designed to provide direct replacement for ball bearing units	 <b>TYPE 845</b>
1/2 -- 3	12	<b>Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing</b> <b>Applications:</b> veneer dryers, plywood dryers, board dryers, oven conveyors	 <b>TYPE 845P</b>
1/2 -- 2	13	<b>Two-Bolt Self-Aligning Flange Block with Cast Iron Housing</b> <b>Applications:</b> veneer dryers, plywood dryers, board dryers, oven conveyors	 <b>TYPE 845F2</b>
1/2 -- 3	13	<b>Four-Bolt Self-Aligning Flange Block with Cast Iron Housing</b> <b>Applications:</b> veneer dryers, plywood dryers, board dryers, oven conveyors	 <b>TYPE 845F4</b>
5/8 -- 3-1/4	14	<b>Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing</b> <b>Applications:</b> cement kilns, heat treating ovens, plating and traveling trash screens. Available in split or solid bushing.	 <b>TYPE 414/475</b>
1-1/2 -- 6	15	<b>Four-Bolt Self-Aligning Pillow Block with Cast Iron Housing</b> <b>Applications:</b> conveyors, cement kilns, heat-treating ovens, plating and traveling trash screens	 <b>TYPE 478</b>
2-3/16 -- 5-15/16	16	<b>Split-Angle Four-Bolt Pillow Block with Cast Iron Housing</b> <b>Applications:</b> ovens, drag-line conveyors, damper process equipment, plating tanks	 <b>TYPE 163S</b>
1 -- 1-1/2	17	<b>Pillow Block Assembly with Cast Iron Housing</b> <b>Applications:</b> veneer dryers	 <b>TYPE 448-6</b>
1 -- 1-1/2	17	<b>Bracket Assembly with Cast Iron Housing</b> <b>Applications:</b> plywood jet dryers	 <b>TYPE 663</b>

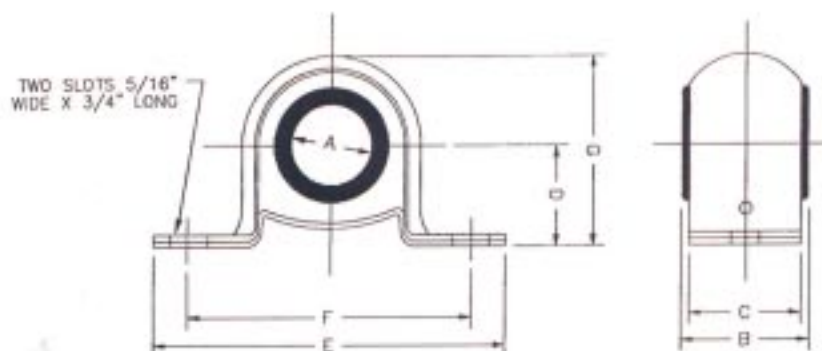
Applications listed are typical for the product. Many other applications can be found.

Shaft sizes other than the standard shaft sizes listed are also available.



## TYPE 327

# Two-Bolt Self-Aligning Pillow Block with Stainless Steel Housing



### Applications

- Fourdrinier Machines
- Single-Pass Dryers
- Vertical-Mounting Pass Dryers
- Can Coating Dryers
- Multideck Dryers

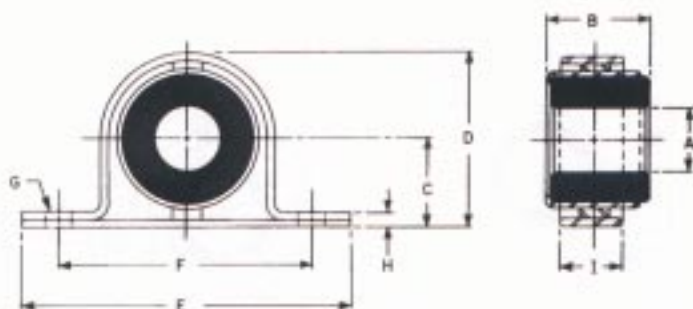
Letters on columns below refer to dimensions on illustrations.

Part Number	Shaft OD						
	A	B	C	D	E	F	G
327-4016	1	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4017	1-1/16	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4018	1-1/8	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4019	1-3/16	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4020	1-1/4	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4021	1-5/16	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4022	1-3/8	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4023	1-7/16	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16
327-4024	1-1/2	1-11/16	1-7/16	1-11/32	5-1/4	3-7/8	2-11/16

Housing grade 316 stainless steel.

# Two-Bolt Self-Aligning Pillow Block with Plated Carbon Steel Housing

**TYPE 675**



Letters on columns below refer to dimensions on illustrations.

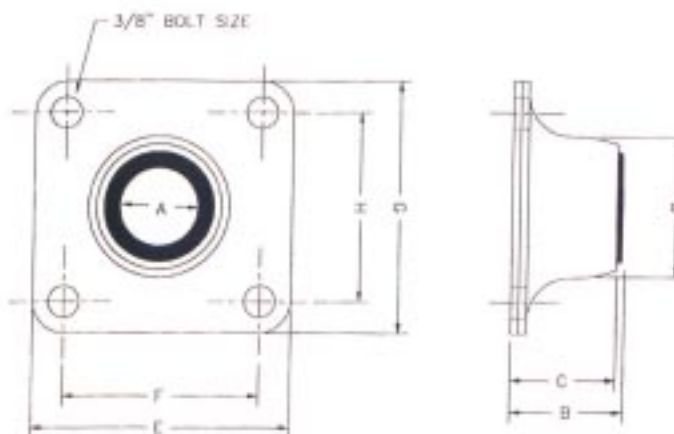
Part Number	Shaft OD		Bolt Size						
	A	B	C	D	E	F	G	H	I
675-08	1/2	1-3/16	7/8	1-13/16	3-1/4	2-1/2	5/16	1/4	1
675-10	5/8	1-3/16	7/8	1-13/16	3-1/4	2-1/2	5/16	1/4	1
675-12	3/4	1-5/8	1-3/8	2-3/4	5-1/4	4	3/8	1/4	1
675-14	7/8	1-5/8	1-3/8	2-3/4	5-1/4	4	3/8	1/4	1
675-16	1	1-5/8	1-3/8	2-3/4	5-1/4	4	3/8	1/4	1
675-20	1-1/4	1-5/8	1-3/8	2-3/4	5-1/4	4	3/8	1/4	1
675-24	1-1/2	1-5/8	1-3/8	2-3/4	5-1/4	4	3/8	1/4	1

## Applications

- Fourdrinier Machines
- Single-Pass Dryers
- Vertical-Mounting Pass Dryers
- Can Coating Dryers
- Multideck Dryers

## TYPE 318

# Four-Bolt Self-Aligning Flange Block with Stainless Steel Housing



Letters on columns below refer to dimensions on illustrations.

Part Number	Shaft OD							
	A	B	C	D	E	F	G	H
318-16	1	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-17	1-1/16	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-18	1-1/8	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-19	1-3/16	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-20	1-1/4	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-21	1-5/16	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-22	1-3/8	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-23	1-7/16	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4
318-24	1-1/2	1-13/16	1-23/32	2-11/16	3-5/8	2-3/4	3-5/8	2-3/4

Housing grade 304 stainless steel.

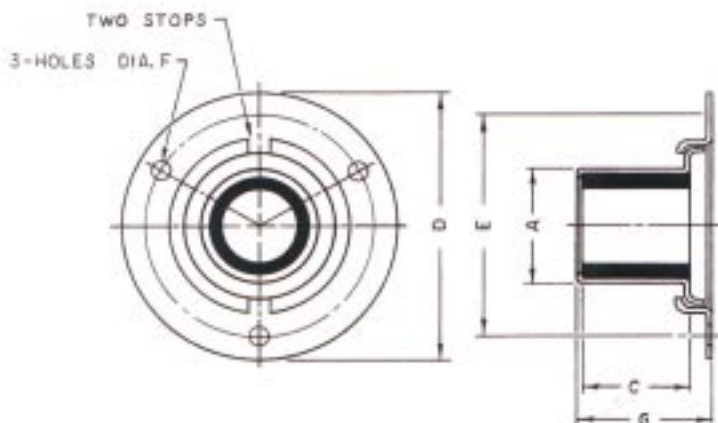
### Applications:

- Damper, Louver, and Shutter Installations



# Three-Bolt Flange Block with Static Self-Alignment and Plated Carbon Steel Housing

**TYPE 517**



Letters on columns below refer to dimensions on illustrations.

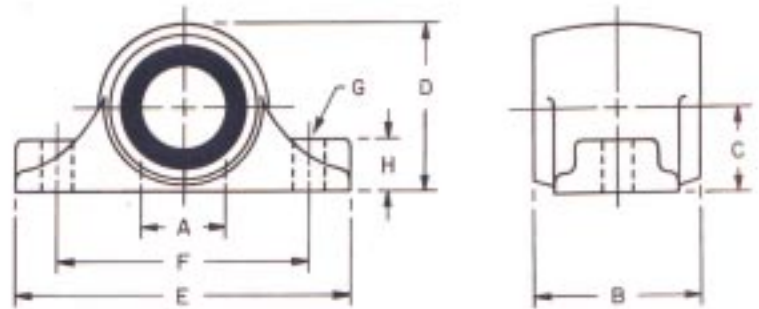
Part Number	Shaft OD		Case OD	Bushing Length	Flange OD	Flange BC	Hole Diameter	Overall Length
			A	C	D	E	F	G
517-1808	1/2	500/.499	1-5/16	1-1/4	3-1/2	2-7/8	5/16	1-9/16
517-1810	5/8	.625/.624	1-5/16	1-1/4	3-1/2	2-7/8	5/16	1-9/16
517-1812	3/4	750/.749	1-5/16	1-1/4	3-1/2	2-7/8	5/16	1-9/16
517-2215	15/16	.937/.936	1-9/16	1-1/2	3-1/2	2-7/8	5/16	1-13/16
517-2216	1	1.000/.999	1-9/16	1-1/2	3-1/2	2-7/8	5/16	1-13/16
517-3219	1-3/16	1.187/1.186	2-1/4	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-3220	1-1/4	1.250/1.249	2-1/4	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-3223	1-7/16	1.437/1.436	2-1/4	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-3224	1-1/2	1.500/1.498	2-1/4	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-4227	1-11/16	1.687/1.685	2-15/16	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-4228	1-3/4	1.750/1.748	2-15/16	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-4231	1-15/16	1.937/1.935	2-15/16	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-4232	2	2.000/1.998	2-15/16	2-1/4	5-1/4	4-1/2	7/16	2-9/16
517-5235	2-3/16	2.187/2.185	3-1/2	2-1/2	5-15/16	5-1/4	7/16	2-13/16
517-5239	2-7/16	2.437/2.435	3-1/2	2-1/2	5-15/16	5-1/4	7/16	2-13/16
517-5240	2-1/2	2.500/2.498	3-1/2	2-1/2	5-15/16	5-1/4	7/16	2-13/16

## Applications

- Damper, Louver, and Shutter Installations

## TYPE 163

## Two-Bolt Pillow Block with Cast Iron Housing



Letters on columns below refer to dimensions on illustrations.

### Applications

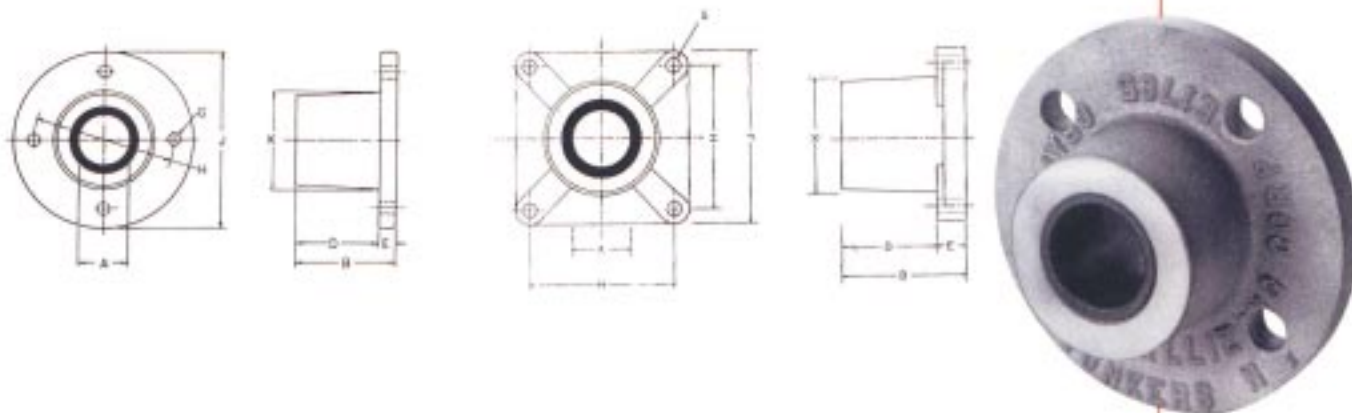
- Ovens
- Drag-Line Conveyors
- Damper Process Equipment
- Plating Tanks

Part Number	Shaft OD								Bolt Size
	A	B	C	D	E	F	G	H	
163-1206	3/8	1-3/8	3/4	1-7/16	3	2-1/8	5/16	3/8	
163-1808	1/2	1-5/8	7/8	1-11/16	3-1/2	2-1/2	5/16	1/2	
163-1810	5/8	1-5/8	7/8	1-11/16	3-1/2	2-1/2	5/16	1/2	
163-1812	3/4	1-5/8	7/8	1-11/16	3-1/2	2-1/2	5/16	1/2	
163-2415	15/16	2	1	2	4	3	3/8	5/8	
163-2416	1	2	1	2	4	3	3/8	5/8	
163-2818	1-1/8	2-1/2	1-1/4	2-7/16	4-3/4	3-1/2	3/8	3/4	
163-2819	1-3/16	2-1/2	1-1/4	2-7/16	4-3/4	3-1/2	3/8	3/4	
163-2820	1-1/4	2-1/2	1-1/4	2-7/16	4-3/4	3-1/2	3/8	3/4	
163-3222	1-3/8	3	1-3/8	2-3/4	5-1/2	4	1/2	7/8	
163-3223	1-7/16	3	1-3/8	2-3/4	5-1/2	4	1/2	7/8	
163-3224	1-1/2	3	1-3/8	2-3/4	5-1/2	4	1/2	7/8	
163-3625	1-9/16	3-1/2	1-1/2	3-1/16	6-1/4	4-1/2	1/2	1	
163-3627	1-11/16	3-1/2	1-1/2	3-1/16	6-1/4	4-1/2	1/2	1	
163-3628	1-3/4	3-1/2	1-1/2	3-1/16	6-1/4	4-1/2	1/2	1	
163-4329	1-13/16	4	1-3/4	3-1/2	7	5-1/4	5/8	1-1/8	
163-4331	1-15/16	4	1-3/4	3-1/2	7	5-1/4	5/8	1-1/8	
163-4332	2	4	1-3/4	3-1/2	7	5-1/4	5/8	1-1/8	
163-4334	2-1/8	4	1-3/4	3-1/2	7	5-1/4	5/8	1-1/8	
163-4835	2-3/16	4-1/2	1-7/8	3-13/16	7-3/4	5-3/4	5/8	1-1/4	
163-4836	2-1/4	4-1/2	1-7/8	3-13/16	7-3/4	5-3/4	5/8	1-1/4	
163-5139	2-7/16	5	2-1/8	4-1/4	8-1/2	6-1/4	5/8	1-3/8	
163-5140	2-1/2	5	2-1/8	4-1/4	8-1/2	6-1/4	5/8	1-3/8	
163-5442	2-5/8	5-1/2	2-1/4	4-9/16	9-1/4	6-3/4	3/4	1-1/2	
163-5443	2-11/16	5-1/2	2-1/4	4-9/16	9-1/4	6-3/4	3/4	1-1/2	
163-5845	2-13/16	6	2-1/2	5	10	7-1/2	3/4	1-5/8	
163-5846	2-7/8	6	2-1/2	5	10	7-1/2	3/4	1-5/8	
163-6447	2-15/16	7	2-3/4	5-7/16	10-3/4	8	7/8	1-7/8	
163-6448	3	7	2-3/4	5-7/16	10-3/4	8	7/8	1-7/8	
163-6451	3-3/16	7	2-3/4	5-7/16	10-3/4	8	7/8	1-7/8	
163-6452	3-1/4	7	2-3/4	5-7/16	10-3/4	8	7/8	1-7/8	
163-6755	3-7/16	7	2-3/4	5-7/16	10-3/4	8	7/8	1-7/8	



# Four-Bolt Flange Block with Cast Iron Housing

## TYPE 563



Letters on columns below refer to dimensions on illustrations.

Part Number	Shaft OD				Bolt Size			
	A	B	D	E	G	H	J	K
563-1808	1/2	1-5/8	1-1/8	1/2	3/8	3	4	2-1/16
563-1810	5/8	1-5/8	1-1/8	1/2	3/8	3	4	2-1/16
563-1812	3/4	1-5/8	1-1/8	1/2	3/8	3	4	2-1/16
563-2415	15/16	2	1-1/2	1/2	1/2	3-5/8	4-3/4	2-7/16
563-2416	1	2	1-1/2	1/2	1/2	3-5/8	4-3/4	2-7/16
563-2818	1-1/8	2-1/2	2	1/2	1/2	3-5/8	4-3/4	2-7/16
563-2819	1-3/16	2-1/2	2	1/2	1/2	3-5/8	4-3/4	2-7/16
563-2820	1-1/4	2-1/2	2	1/2	1/2	3-5/8	4-3/4	2-7/16
563-3222	1-3/8	3	2-1/2	1/2	1/2	4-1/8	5-3/8	2-15/16
563-3223	1-7/16	3	2-1/2	1/2	1/2	4-1/8	5-3/8	2-15/16
563-3224	1-1/2	3	2-1/2	1/2	1/2	4-1/8	5-3/8	2-15/16
563-3627	1-11/16	3-1/2	2-7/8	5/8	5/8	5-1/4	6-3/4	3-13/16
563-3628	1-3/4	3-1/2	2-7/8	5/8	5/8	5-1/4	6-3/4	3-13/16
563-4329	1-13/16	4	3-3/8	5/8	5/8	5-1/4	6-3/4	3-13/16
563-4331	1-15/16	4	3-3/8	5/8	5/8	5-1/4	6-3/4	3-13/16
563-4332	2	4	3-3/8	5/8	5/8	5-1/4	6-3/4	3-13/16

Shaft sizes below incorporate a four-bolt SQUARE flange block

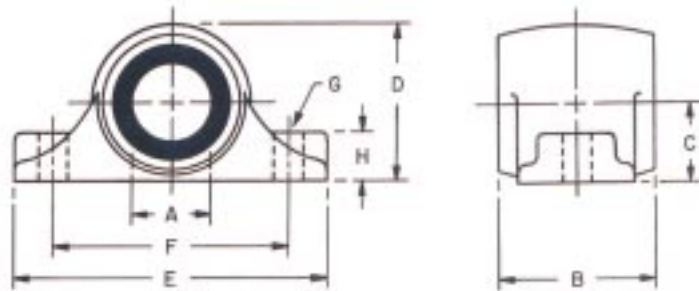
563-4835	2-3/16	2-1/4	1-3/4	1/2	1/2	4-1/8*	5-3/8	4
563-4836	2-1/4	2-1/4	1-3/4	1/2	1/2	4-1/8*	5-3/8	4
563-5239	2-7/16	2-1/4	1-3/4	1/2	1/2	4-1/8*	5-3/8	4
563-5240	2-1/2	2-1/4	1-3/4	1/2	1/2	4-1/8*	5-3/8	4
563-6447	2-15/16	3-3/8	2-9/16	13/16	5/8	5-1/8*	6-3/8	5-1/2
563-6448	3	3-3/8	2-9/16	13/16	5/8	5-1/8*	6-3/8	5-1/2
563-6855	3-7/16	3-3/8	2-9/16	13/16	5/8	5-1/8*	6-3/8	5-1/2
563-6856	3-1/2	3-3/8	2-9/16	13/16	5/8	5-1/8*	6-3/8	5-1/2
563-7260	3-3/4	3-3/8	2-9/16	13/16	5/8	5-1/8*	6-3/8	5-1/2

\*Bolt center to adjacent bolt center, not bolt circle.

## Applications

- Ovens
- Drag-Line Conveyors
- Damper Process Equipment
- Plating Tanks



**TYPE 963****Two-Bolt Pillow Block With Stainless Steel Housing**

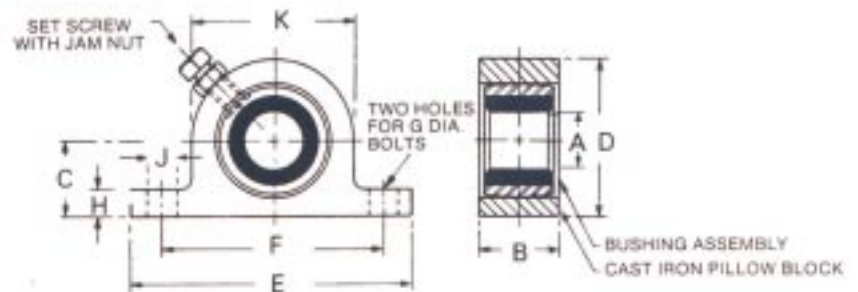
Letters on columns below refer to dimensions on illustrations.

**Applications:**

- Textile Industry Bleaching, Dyeing, Mercerizing
- Submerged or Above Solution
- Oven Conveyors
- Food Contact Equipment—FDA Accepted Grades

Part Number	Shaft OD								Bolt Size
	A	B	C	D	E	F	G	H	
963-12XX	3/8	1-3/8	3/4	1-7/16	3	2-1/8	5/16	3/8	
963-18XX	1/2 -- 3/4	1-5/8	7/8	1-11/16	3-1/2	2-1/2	5/16	1/2	
963-24XX	15/16 -- 1	2	1	2	4	3	3/8	5/8	
963-28XX	1-1/8 -- 1-1/4	2-1/2	1-1/4	2-7/16	4-3/4	3-1/2	3/8	3/4	
963-32XX	1-3/8 -- 1-1/2	3	1-3/8	2-3/4	5-1/2	4	1/2	7/8	
963-36XX	1-9/16 -- 1-3/4	3-1/2	1-1/2	3-1/16	6-1/4	4-1/2	1/2	1	
963-43XX	1-13/16 -- 2-1/8	4	1-3/4	3-1/2	7	5-1/4	5/8	1-1/8	
963-51XX	2-3/16 -- 2-1/2	5	2-1/8	4-1/4	8-1/2	6-1/4	5/8	1-3/8	

Housing grade 309 stainless steel.

**TYPE 448****Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing**

Letters on columns below refer to dimensions on illustrations.

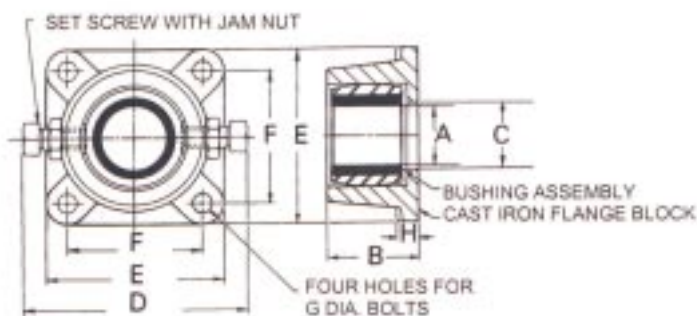
**Applications:**

- Veneer, Plywood, and Board Dryers
- Oven Conveyors

Pillow Block	Insert Type	Max. Shaft									
		A	B	C	D	E	F	G	H	J	K
448-3	448-1	1-5/8	1-3/16	1-3/4	3-5/8	6-1/2	5-1/8	1/2	5/8	11/16	3-3/4
448-13	448-11	2-1/2	3	3	6	10-1/2	8	3/4	1	1	6
448-23	448-21	3	3	3	6	10-1/2	8	3/4	1	1	6

## Four-Bolt Self-Aligning Flange Block with Cast Iron Housing

**TYPE 448**



Letters on columns below refer to dimensions on illustrations.

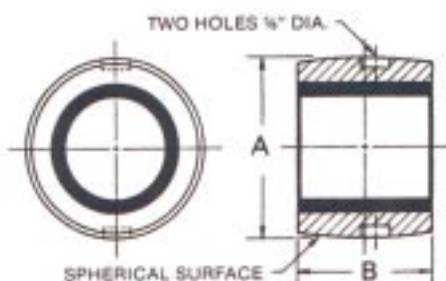
Flange Block	Insert Type	Max. Shaft							
			A	B	C	D	E	F	G
448-5	448-1	1-5/8	2-3/16	2-1/4	5-5/8	4-1/4	3-1/4	1/2	1/2
448-5B	448-1	1-5/8	2-3/16	2-1/4	6	4-5/8	3-5/8	1/2	1/2
448-5C	448-1	1-5/8	2-3/16	2-1/4	6-1/2	5-1/8	4	1/2	1/2
448-19	448-9	2	2-1/4	2-1/2	6	5-3/8	4-1/8	1/2	1/2
448-15	448-11	2-1/2	3-3/8	3-1/2	7-1/8	6-3/8	5-1/8	5/8	13/16
448-25	448-21	3	3-3/8	3-1/2	7-1/8	6-3/8	5-1/8	5/8	13/16

### Applications:

- Veneer, Plywood, and Board Dryers
- Oven Conveyors

## Spherical Bushing Assemblies

**TYPE 448**

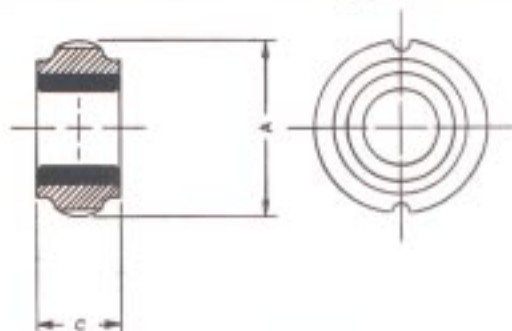


Letters on columns below refer to dimensions on illustrations.

Shaft OD	Bushing Assembly	Spherical	
		OD	Length
		A	B
1 thru 1-5/8	448-1	2-1/2	1-11/16
1-5/8 thru 2	448-9	3	1-7/8
2 thru 2-1/2	448-11	4	3
2-1/2 thru 3	448-21	4-3/4	3

Spherical inserts for standard 448 Pillow and Flange Block Assemblies.



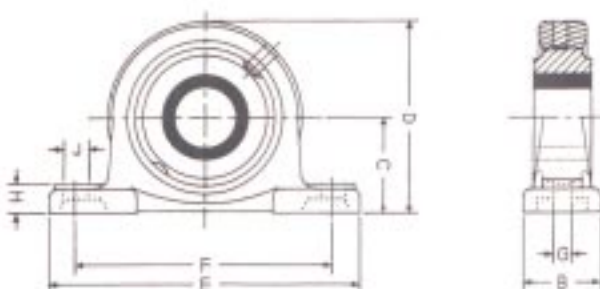
**TYPE 845****Spherical Inserts for Standard Pillow and Flange Blocks**

These inserts are designed to provide a direct replacement for ball bearings without altering or redesigning your equipment.

Letters on columns below refer to dimensions on illustrations.

Part Number*	Standard Shaft Size*		OD	Length	Fits Housing ID
	Min	Max			
845-30	1/2	3/4	1.8445	1	47mm
845-33	3/4	1	2.0415	1-1/16	52mm
845-39	1-1/16	1-1/4	2.435	1-3/16	62mm
845-45	1-1/4	1-1/2	2.829	1-1/2	72mm
845-50	1-1/2	1-5/8	3.144	1-1/2	80mm
845-53	1-5/8	1-3/4	3.3415	1-9/16	85mm
845-57	1-3/4	2	3.5375	1-5/8	90mm
845-63	2	2-1/4	3.932	1-3/4	100mm
845-69	2-1/4	2-1/2	4.326	1-13/16	110mm
845-79	2-7/16	2-11/16	4.915	2-23/32	130mm
845-82	2-11/16	3	5.1135	2-23/32	130mm

\*Metric shaft sizes available

**TYPE 845P****Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing**

Letters on columns below refer to dimensions on illustrations.

**Applications:**

- Veneer, Plywood, and Board Dryers
- Oven Conveyors

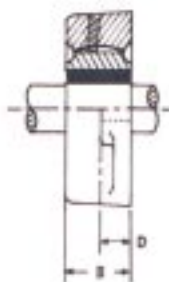
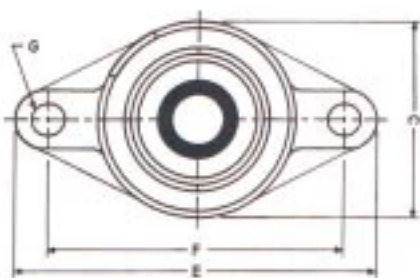
Part Number*	Standard Shaft Size*		Bolt Size							
	Min	Max	B	C	D	E	F	G	H	J
845P-30	1/2	3/4	1-1/2	1-5/16	2-17/32	5	3-3/4	3/8	1/2	3/4
845P-33	3/4	1	1-1/2	1-7/16	2-25/32	5-1/2	4-1/8	3/8	1/2	3/4
845P-39	1-1/16	1-1/4	1-7/8	1-11/16	3-5/16	6-1/2	4-3/4	1/2	19/32	13/16
845P-45	1-1/4	1-1/2	1-7/8	1-7/8	3-21/32	6-9/16	5	1/2	5/8	13/16
845P-50	1-1/2	1-5/8	2-1/8	1-15/16	3-27/32	7-1/4	5-13/32	1/2	21/32	13/16
845P-53	1-5/8	1-3/4	2-1/8	2-1/8	4-3/16	7-15/32	5-3/4	1/2	21/32	13/16
845P-57	1-3/4	2	2-3/8	2-1/4	4-7/16	8-1/8	6-1/4	5/8	3/4	7/8
845P-63	2	2-1/4	2-3/8	2-1/2	4-23/32	8-5/8	6-23/32	5/8	3/4	7/8
845P-69	2-1/4	2-1/2	2-3/4	2-3/4	5-7/16	9-1/2	7-1/4	5/8	7/8	1
845P-82	2-11/16	3	2-29/32	3-1/4	6-3/8	10-13/16	8-17/32	3/4	1-3/32	1-3/16

\*Metric shaft sizes available



## Two-Bolt Self-Aligning Flange Block with Cast Iron Housing

**TYPE 845F2**



Letters on columns below refer to dimensions on illustrations.

Part Number*	Standard Shaft Size*								Bolt Size
	Min	Max	B	C	D	E	F	G	
845F2-30	1/2	3/4	1-1/16	2-3/8	7/16	4-7/16	3-35/64	3/8	
845F2-33	3/4	1	1-7/32	2-11/16	1/2	5-1/8	3-57/64	1/2	
845F2-39	1-1/16	1-1/4	1-11/32	3-5/32	1/2	5-13/16	4-39/64	1/2	
845F2-45	1-1/4	1-1/2	1-13/32	3-17/32	9/16	6-11/16	5-1/8	1/2	
845F2-50	1-1/2	1-5/8	1-1/2	3-15/32	9/16	6-7/8	5-43/64	1/2	
845F2-53	1-5/8	1-3/4	1-9/16	4-1/4	19/32	7-13/32	5-53/64	5/8	
845F2-57	1-3/4	2	1-11/16	4-17/32	19/32	7-3/4	6-3/16	5/8	
845F2-63	2	2-1/4	1-55/64	5-1/8	63/64	8-13/16	7-1/4	5/8	
845F2-69	2-1/4	2-1/2	2-1/64	5-1/2	1-9/64	9-27/32	7-61/64	3/4	

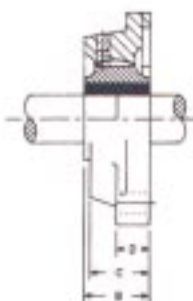
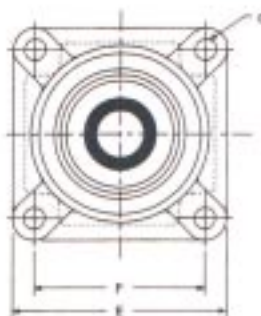
\*Metric shaft sizes available

### Applications:

- Veneer, Plywood, and Board Dryers
- Oven Conveyors

## Four-Bolt Self-Aligning Flange Block with Cast Iron Housing

**TYPE 845F4**



Letters on columns below refer to dimensions on illustrations.

Part Number*	Standard Shaft Size*								Bolt Size
	Min	Max	B	C	D	E	F	G	
845F4-30	1/2	3/4	1	1	15/32	3-3/8	2-33/64	3/8	
845F4-33	3/4	1	1-3/32	1-1/16	9/16	3-3/4	2-3/4	3/8	
845F4-39	1-1/16	1-1/4	1-7/32	1-7/32	9/16	4-1/4	3-17/64	3/8	
845F4-45	1-1/4	1-1/2	1-7/16	1-11/32	5/8	4-19/32	3-5/8	7/16	
845F4-50	1-1/2	1-5/8	1-1/2	1-13/32	5/8	5-1/8	4-1/64	1/2	
845F4-53	1-5/8	1-3/4	1-11/32	1-1/2	23/32	5-13/32	4-9/64	1/2	
845F4-57	1-3/4	2	1-9/16	1-9/16	23/32	5-5/8	4-3/8	1/2	
845F4-63	2	2-1/4	1-55/64	1-11/16	63/64	6-3/8	5-1/8	5/8	
845F4-69	2-1/4	2-1/2	1-7/8	1-7/8	1-9/16	6-7/8	5-5/8	5/8	
845F4-82	2-11/16	3	2-45/64	2-7/32	1-11/32	7-7/8	6-17/64	5/8	

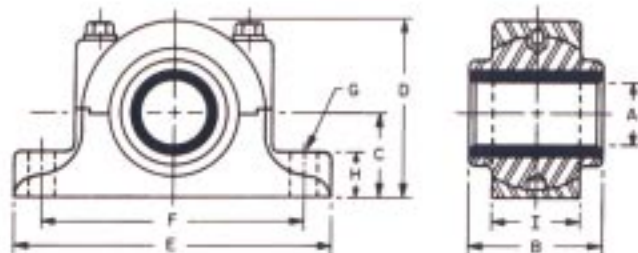
\*Metric shaft sizes available

### Applications:

- Veneer, Plywood, and Board Dryers
- Oven Conveyors

## TYPE 414/475

## Two-Bolt Self-Aligning Pillow Block with Cast Iron Housing



Letters on columns below refer to dimensions on illustrations.

Available with Split (414) or Solid (475) Bushings. The 414 with a split bushing can be assembled over a shaft without removing equipment from the shaft. Both models have a split, two-bolt housing.

### Applications

- Heat Treating Ovens
- Conveyors
- Cement Kilns
- Plating and Traveling Trash Screens

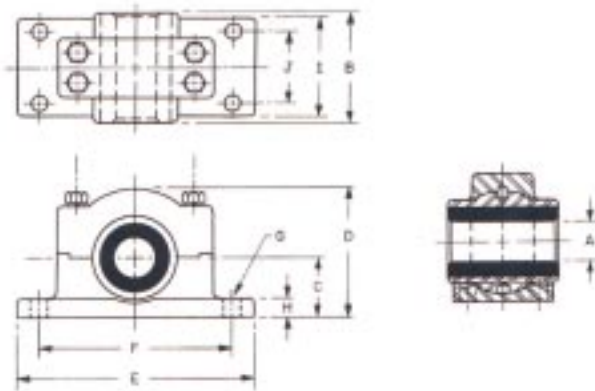
Part Number	Shaft OD					Bolt Size			
	A	B	C	D	E	F	G	H	I
414/475-1810	5/8	1-5/8	1-1/2	3-1/8	6	4-3/4	1/2	15/32	1-3/8
414/475-2012	3/4	1-5/8	1-1/2	3-1/8	6	4-3/4	1/2	15/32	1-3/8
414/475-2415	15/16	2	1-1/2	3-1/8	6	4-3/4	1/2	15/32	1-3/8
414/475-2416	1	2	1-1/2	3-1/8	6	4-3/4	1/2	15/32	1-3/8
414/475-2618	1-1/8	2	1-1/2	3-1/8	6	4-3/4	1/2	15/32	1-3/8
414/475-3219	1-3/16	2-1/2	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-3220	1-1/4	2-1/2	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-3623	1-7/16	3	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-3624	1-1/2	3	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-4027	1-11/16	3-1/2	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-4028	1-3/4	3-1/2	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-4029	1-13/16	3-1/2	2-5/8	5-3/8	9	7-1/2	1/2	1-3/8	2-5/16
414/475-4431	1-15/16	4	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-4432	2	4	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-4434	2-1/8	4	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-4835	2-3/16	4-1/2	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-4836	2-1/4	4-1/2	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-5139	2-7/16	5	3-1/4	6-5/8	12	10	5/8	1-3/4	3-1/4
414/475-5442	2-5/8	5-1/2	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-5443	2-11/16	5-1/2	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-5845	2-13/16	6	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-5846	2-7/8	6	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-6447	2-15/16	7	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-6448	3	7	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-6451	3-3/16	7	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4
414/475-6452	3-1/4	7	3-3/4	7-3/4	13-1/2	11-1/4	3/4	2	4

Specify (475) for solid insert or (414) for split insert.



# Four-Bolt Self-Aligning Pillow Block with Cast Iron Housing

**TYPE 478**



Letters on columns below refer to dimensions on illustrations.

Part Number	Shaft OD					Bolt Size				
	A	B	C	D	E	F	G	H	I	J
478-3624	1-1/2	3-1/2	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4027	*1-11/16	4-1/2	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4028	1-3/4	4-1/2	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4431	*1-15/16	5	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4432	2	5	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4835	*2-3/16	5-1/2	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-4836	2-1/4	5-1/2	2-3/4	5-3/8	9-1/2	8	5/8	3/4	4	2
478-5639	*2-7/16	6	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-5640	2-1/2	6	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-6044	2-3/4	6-1/2	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-6847	*2-15/16	7	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-6848	3	7	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-7252	3-1/4	7	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-7655	*3-7/16	7-1/2	4	8-5/8	16	13	1	1-1/4	6-3/4	4
478-7656	3-1/2	7-1/2	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-8060	3-3/4	8	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-8463	*3-15/16	8	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-8464	4	8	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-9271	*4-7/16	9	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-9272	4-1/2	9	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-100.79	*4-15/16	10	5-1/2	11-3/4	21-1/2	18	1-1/8	1-1/2	8	5
478-100.80	5	10	6-1/2	12-3/4	22-1/2	19	1-1/4	1-1/2	10	6
478-112.87	*5-7/16	12	6-1/2	12-3/4	22-1/2	19	1-1/4	1-1/2	10	6
478-112.88	5-1/2	12	6-1/2	12-3/4	22-1/2	19	1-1/4	1-1/2	10	6
478-120.95	*5-15/16	12	6-1/2	12-3/4	22-1/2	19	1-1/4	1-1/2	10	6
478-120.96	6	12	6-1/2	12-3/4	22-1/2	19	1-1/4	1-1/2	10	6

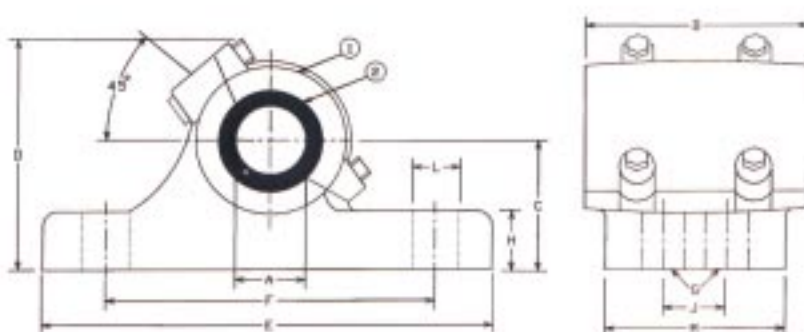
## Applications:

- Conveyors
- Cement Kilns
- Heat Treating Ovens
- Plating and Traveling Trash Screens



## TYPE 163S

## Split-Angle Four-Bolt Pillow Block with Cast Iron Housing



### Applications:

- Ovens
- Drag-Line Conveyors
- Damper Process Equipment
- Plating Tanks

Letters on columns below refer to dimensions on illustrations.

Part Number	Shaft OD											Bolt Size
	A	B	C	D	E	F	G	H	J	L	M	
163S-TS116071-35	2-3/16	4-1/2	2-1/2	4-7/8	8-1/2	6-3/4	1/2	1	1-3/4	3/4	3-1/2	
163S-TS116071G-39	2-7/16	5	2-3/4	5-5/16	10-1/4	8	5/8	1-1/8	2	1	4	
163S-TS116071G-40	2-1/2	5	2-3/4	5-5/16	10-1/4	8	5/8	1-1/8	2	1	4	
163S-TS116071-47	2-15/16	6	3-1/4	6-3/8	11	8-3/4	5/8	1-3/8	2-1/2	1	4-1/2	
163S-TS116071-48	3	6	3-1/4	6-3/8	11	8-3/4	5/8	1-3/8	2-1/2	1	4-1/2	
163S-TS116071-55	3-7/16	7	3-1/2	7-1/8	13	10-1/2	3/4	1-1/2	2-3/4	1-1/4	5	
163S-TS116071-63	3-15/16	8	3-3/4	8-1/4	14-3/4	12	3/4	1-5/8	3	1-3/8	5-1/2	
163S-TS116071-71	4-7/16	9	4-1/8	8-7/8	16-1/2	13-1/2	7/8	1-3/4	3-1/2	1-1/2	6-1/4	
163S-TS116071-79	4-15/16	9	4-1/2	9-3/4	18	15	7/8	1-7/8	4	1-5/8	7	
163S-TS116071-87	5-7/16	9	5	10-13/16	19-3/4	15-3/4	1	2	4-1/2	1-3/4	7-3/4	
163S-TS116071-95	5-15/16	9	5-1/2	11-5/16	20-1/2	16-1/2	1-1/8	2-1/8	5	1-7/8	8-1/2	

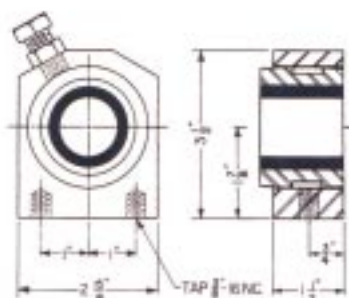
Selected sizes are available with Horizontally Split Housings.

Split cap has two bolts thru 3 in. shaft.

4 Bolt Cap above 3 in.

## Pillow Block Assembly with Cast Iron Housing

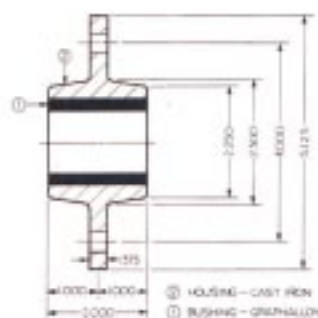
**TYPE 448-6**



**Applications:**  
■ Veneer Dryers

## Bracket Assembly with Cast Iron Housing

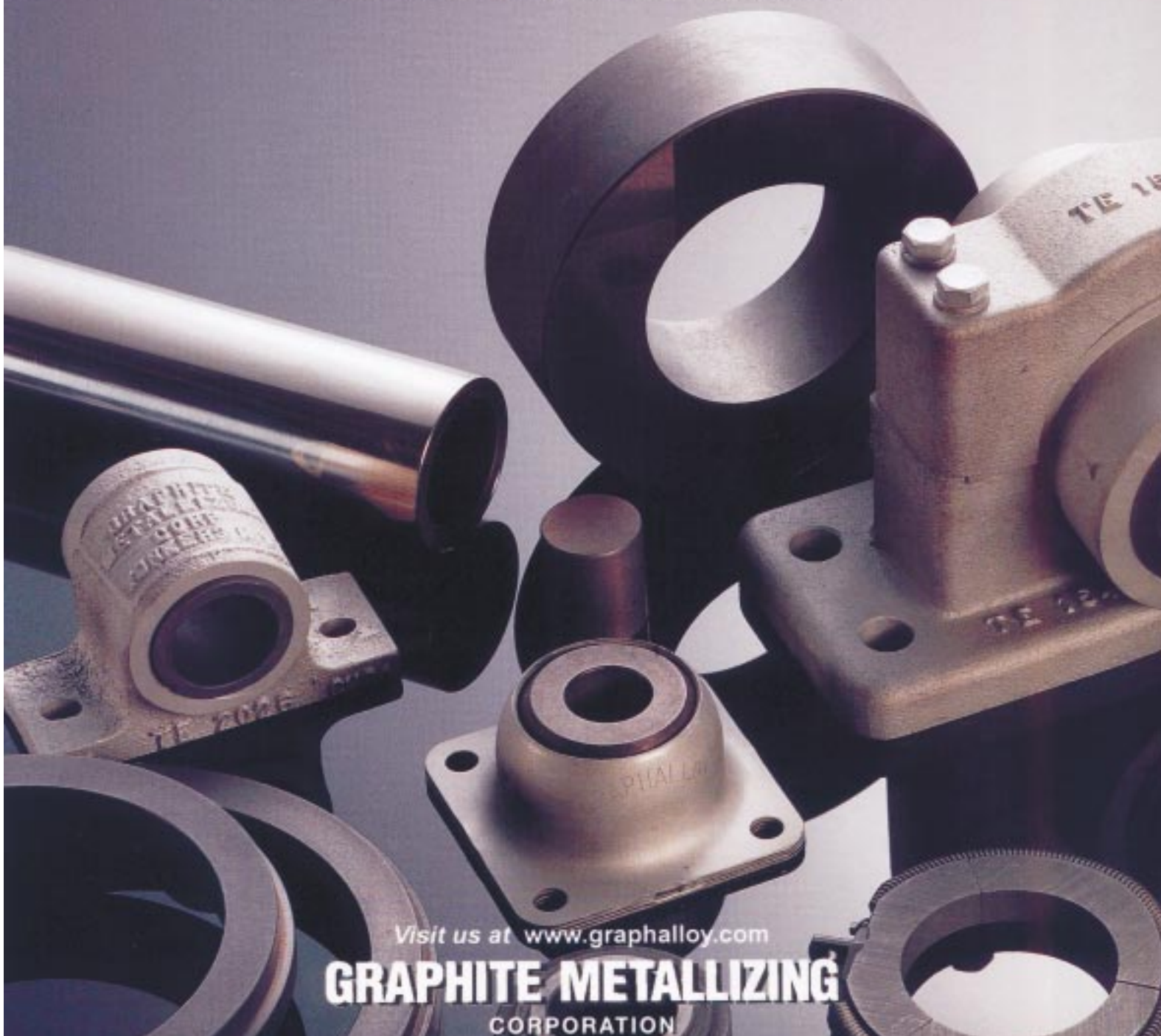
**TYPE 663**



**Applications:**  
■ Plywood Jet Dryers

Shaft OD	Bushing Assembly
1.000/.999	663-16
1.250/1.249	663-20
1.500/1.499	663-24

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