GENERAL MOLD COMPONENTS

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Core Pins.....G36

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Die Bushings.....G27

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GENERAL MOLD COMPONENTS

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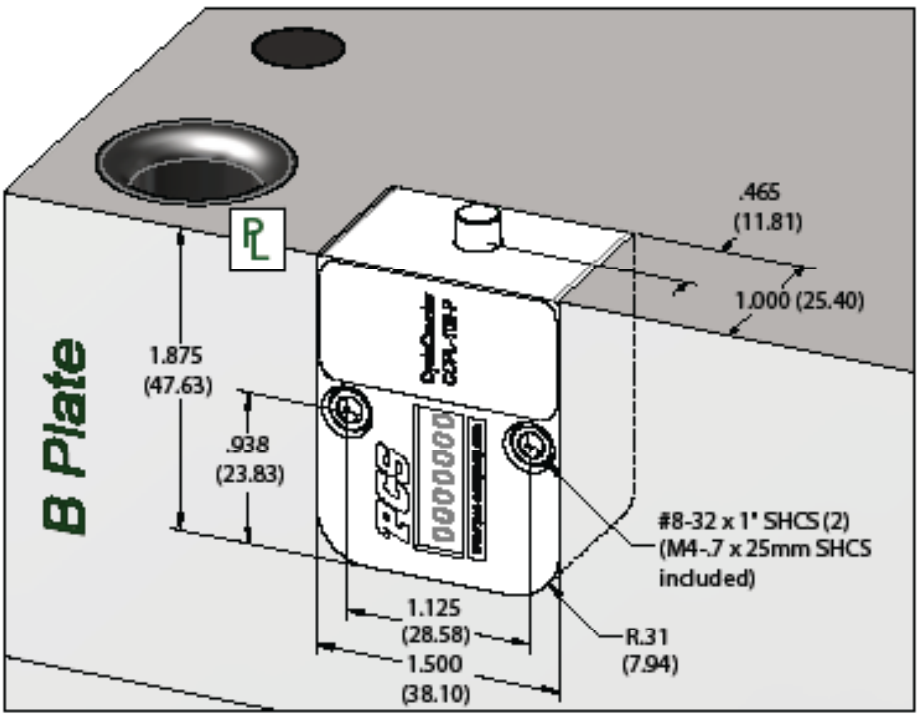
Tubular Dowel Pins.....G41

Cycle Counter

- Industry standard footprint
- Aids in overall mold maintenance procedures
- Parting line mount for easy visibility
- Maximum Operating Temperature: 250°F (120°C)
- Two mounting screws included

PCS Company's Cycle Counter is guaranteed to last for the lifetime of your mold. This 7-digit, mechanical counter is non-resettable and is easily mounted at the parting line. It is designed to accurately monitor the mold cycle count and aids in overall mold maintenance procedures.







Free Aluminum Tool I.D. plaque comes standard with each Cycle Counter.

Material: Glass-Filled Nylon Housing

CATALOG NO.	MOUNTING SCREWS INCLUDED	UNIT OF MEASURE
CCPL-100-P	#8-32 x 1"	Inch
CCPL-200-P	M4-0.7 x 25 mm	Metric

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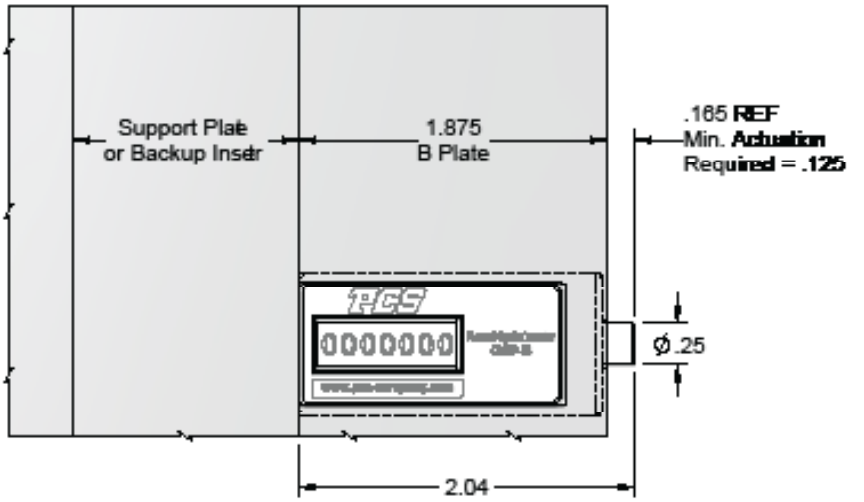
Round Cycle Counter

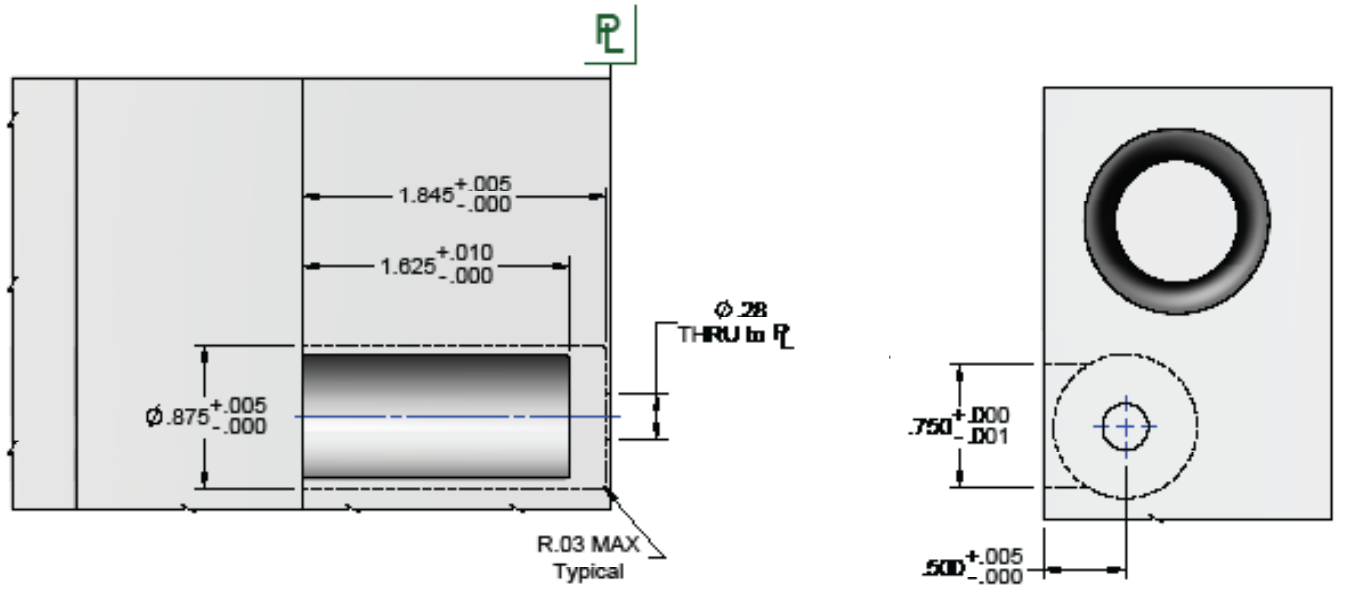


- Lifetime Warranty
- Industry standard footprint
- Maximum Operating Temperature: 250°F (120°C)
- Accurately monitor mold cycle count

PCS Company's Round Cycle Counter is a compact alternative to the standard, rectangular cycle counter. It is designed to monitor the opening and closing of the mold. This 7-digit, mechanical counter is non-resettable and easily mounted in the B Plate. Each time the mold closes; the cycle counter records that action by increasing the displayed count.

Round Cycle Counter should be installed in the B Plate with a thickness of 1.875" (47mm).





Material: Glass-filled Nylon Housing

CATALOG NO.	NOMINAL PLATE THICKNESS	UNIT OF MEASURE
CVRP-18	1.875	Inch

Cycle Counter Lifetime Warranty

PCS Company ("PCS") warrants our cycle counter performance for the life of the injection mold the cycle counter was designed to fit. Provided that all warranty conditions below have been met, PCS will replace a cycle counter if, in PCS' sole determination, the cycle counter did not conform to PCS specification or is defective, at PCS expense. PCS makes no other warranties whatsoever, whether expressed or implied, with respect to the cycle counter including any warranty of merchantability, or arising from a course of dealing, course of performance, law, usage, trade practice or otherwise, which are hereby excluded to the extent allowed by applicable law and are expressly disclaimed by PCS.

This warranty is limited to the original purchaser of the mold (OEM), injection molder or the mold builder and cycle counter from PCS.

Liability is limited to the cost of the replacement cycle counters only, and does not extend to any indirect, incidental, consequential, or special damages occasioned by such defect or wear, including without limitation damage to the mold or machine, loss of machine use, inconvenience, loss of good will, lost profits, or down time. PCS does not warranty any causes beyond its control.

Additional Conditions of this warranty:
1.Counter must be installed properly, with the action of the plunger square to the parting line. Plunger must not be press-fit or forced into its mating mold pocket. Plunger should depress freely and return freely upon initial installation.

2.Cycle Counters may not be exposed to corrosive chemical agents or gases, abrasives, dust, dirt, temperatures above 250°F, modified, or subject to abuse.

Return / Replacement Policy:
Should a malfunction occur, contact PCS via returngoodsrequest@pcs-company.com or call 1-800-521-0546. PCS requires submission of the sales order number, the customer purchase order number, and an explanation of the failure experienced. Submission of photos and any product design information will aid in the evaluation process. An RGA # will be issued to retrieve the malfunctioning cycle counter(s).

The cycle counter(s) are to be sent to PCS Company – 33835 Riviera Dr. Fraser, MI 48026 with the assigned RGA # clearly written on the package. PCS will provide replacement cycle counter(s) and will cover standard freight costs in both the return and replacement shipments. PCS will not be held responsible for freight costs on expedited deliveries.

Upon receipt of the returned cycle counter(s), PCS Company will conduct an evaluation to identify the cause of the failure. If the warranty conditions herein were adhered to and a defect is identified in the evaluation, PCS will, in its sole discretion, issue a credit for the defective cycle counter(s) purchased.

PCS Company reserves the right to modify or eliminate this warranty for subsequent cycle counter purchases for certain customers.

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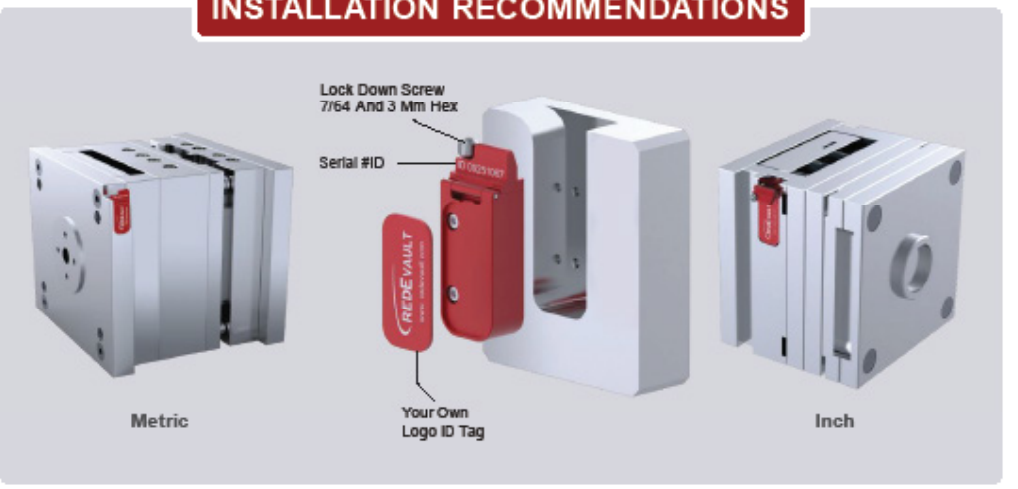
Red E Vault™

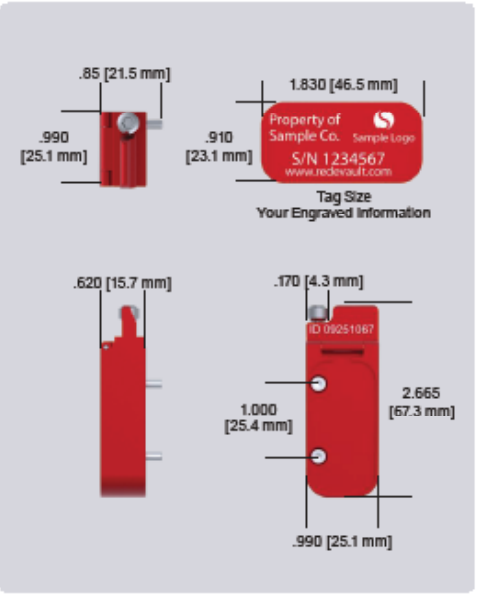


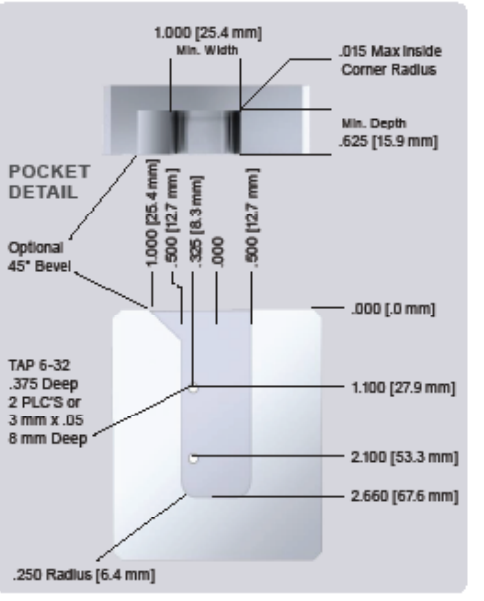
- Virtually indestructible aluminum case
- Resistant to water, solvents, heat, vibration, and magnetism
- Up to 16 GB memory
- No batteries required (data is safe for the life of the tool)
- Data encryption included
- Multilingual & customizable interface
- Easily store and access data files: BOM, data logs, repair history, etc...

The Red E Vault™ mold management solution was designed to help mold owners secure and manage their mold data. The user-friendly software saves time and money by providing your employees with 24/7 access to your mold data. With up to 16GB of memory and the ability to encrypt your files, the Red E Vault™ makes sure your data is easily accessible and never compromised.

INSTALLATION RECOMMENDATIONS







CATALOG NO.	LENGTH	THICKNESS	WIDTH
RDV-1000	2.665	.620	.990

Air Poppet Valves

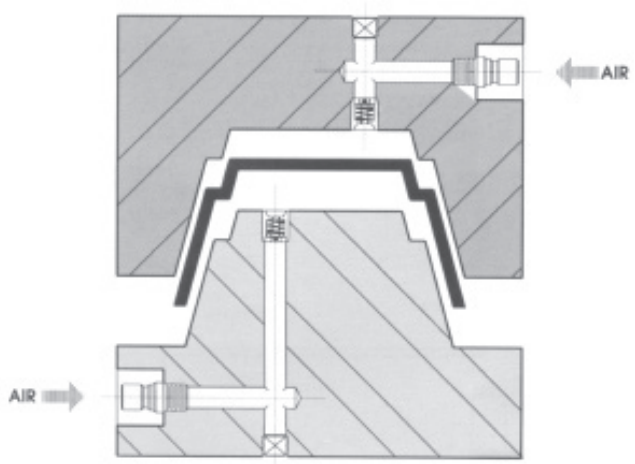
- Designed to break the vacuum created when molding deep drawn or thin walled parts such as flower pots, trays and containers
- Precision ground to prevent flash from entering assembly during injection
- Manufactured from Stainless Steel, 43 - 45 Rc
- Multiple units can be used for large or heavy slides

Installation Guidelines
Tolerances indicate suggested clearance and press-fit for proper installation. Individual valve sizes vary within their tolerance range. Use brass piece (or similar material) to gently press the valve into cavity area. To remove, simply use a soft punch from the clearance hole side.

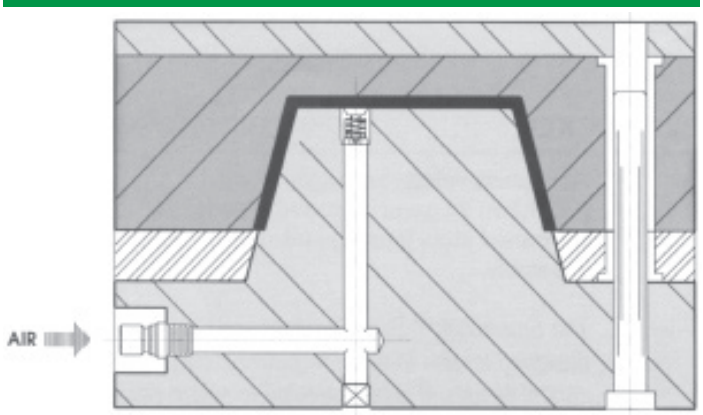
Note:
Air line must be cleared of all debris prior to valve installation

The air flow to the Air Poppet Valve must be fully relieved to the atmosphere after each cycle to ensure the valve closes before the next injection cycle.

Typical Standard Mold Base Application



Typical Stripper Mold Base Application



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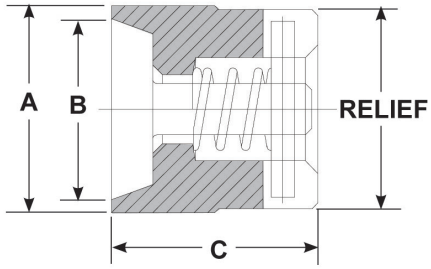
Air Poppet Valves Inch



- Center spool keyed to prevent rotation
- Precision ground to prevent flash
- Manufactured from Stainless Steel
- Multiple units can be used for large cavities and cores.
- Recommended operating air pressure 60 - 90 psi

Air Poppet Valves are designed to break the vacuum that is created when molding thin-walled or deep-drawn parts, such as flower pots, trays and containers. They are precision ground to prevent flash from entering the assembly during injection and manufactured from stainless steel. The center spool is keyed to prevent rotation. Multiple air poppet valves can be used for large or heavy slides as needed.

SPECIFICATIONS	
A Body O.D. Tolerance	+.0003/-.0000
B Poppet Disc Diameter Tolerance	+.005/-.005
C Overall Length Tolerance	+.002/-.000
Operating Pressure	60 - 90 psi
Surface Hardness	43 - 45 Rc
Material Type	H925 SS
Unit of Measure	Inch



CATALOG NO.	NOMINAL DIAMETER	A BODY O.D.	B POPPET DISC DIAMETER	C OVERALL LENGTH
PV-025	1/4	0.2504	0.215	0.375
PV-037	3/8	0.3754	0.325	0.375
PV-050	1/2	0.5005	0.437	0.500
PV-075	3/4	0.7505	0.656	0.750
PV-100	1	1.0006	0.875	1.000
PV-150	1-1/2	1.5006	1.312	1.500

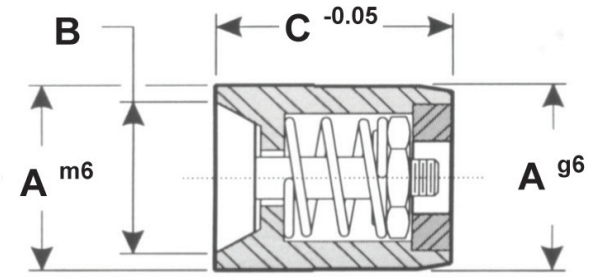
Air Poppet Valves Metric

- Precision ground to prevent flash
- Manufactured from Stainless Steel
- Multiple units can be used for large cavities and cores.
- Recommended operating air pressure 60 - 90 psi



Air Poppet Valves are designed to break the vacuum that is created when molding thin-walled or deep-drawn parts such as flower pots, trays and containers. They are precision ground to prevent flash from entering the assembly during injection and manufactured from stainless steel. Multiple air poppet valves can be used for large or heavy slides as needed.

SPECIFICATIONS	
C Overall Length Tolerance	-0.05
Operating Pressure	60 - 90 psi
Surface Hardness	48 - 54 Rc
Material Type	1.4034
Unit of Measure	Metric DIN



CATALOG NO.	A BODY O.D.	B POPPET DISC DIAMETER	C OVERALL LENGTH
PV 050412	5	3	12
PV 065212	6	5.2	12
PV 086512	8	6.5	12
PV 100812	10	8	12
PV 121012	12	10	12
PV 161320	16	13	20
PV 201720	20	17	20

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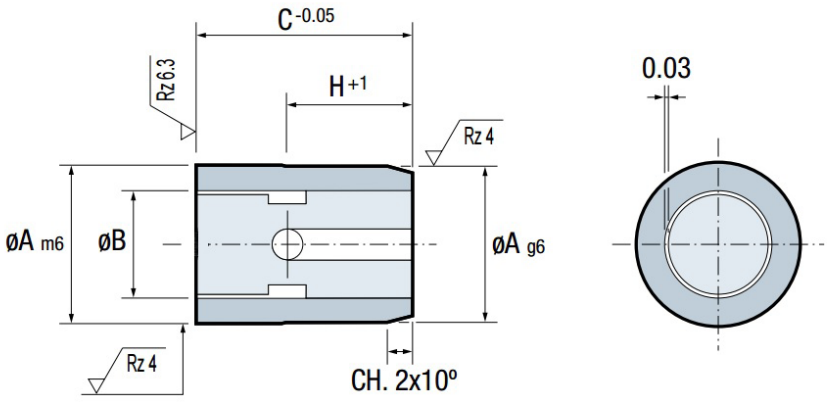
Double Air Valves



- Effective method of semi pneumatic ejection
- Allows air to pass through gap when pressure is applied
- Acts as a vent to relieve gas pressure
- Precision tolerance of 0.0012” prevents plastic from entering gap during injection

Double Air Valves are designed for tools with ribs or areas forming gas traps or vacuum conditions. These are manufactured from stainless steel with the advantage of high airflow, excellent rust resistance and heat elimination.

SPECIFICATIONS	
C Overall Length Tolerance	-0.05 mm
Operating Pressure	60 - 90 psi
Surface Hardness	50-55 Rc
Material Type	AISI 420 Stainless Steel
Unit of Measure	Metric DIN



CATALOG NO.	A BODY O.D.	B POPPET DISC DIAMETER	C OVERALL LENGTH
DV 080512	8	5	12
DV 100612	10	6	12
DV 120812	12	8	12
DV 161020	16	10	20

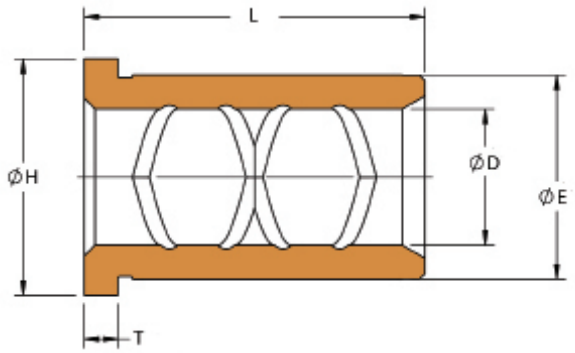
Shoulder Bushings - Solid Bronze

- High-strength precision ground bronze
- Extends mold lifetime
- Increased lubricity for smooth operation
- Internal grease grooves help prevent galling
- Resists wear & abrasion on high compressive loads



PCS Solid Bronze Shoulder Bushings are made from solid bronze with nominal diameters ranging from 3/4" to 3". Internal grease grooves help prevent galling for a smooth operation.

SPECIFICATIONS				
NOMINAL I.D.	D +.0005 / - .0000	E +.0005 / - .0000	H +.00 / -.01	T +.000 / - .005
3/4	0.7505	1.1255	1.302	0.187
7/8	0.8755	1.2505	1.427	0.187
1	1.0005	1.3755	1.552	0.187
1-1/4	1.2505	1.6255	1.802	0.187
1-1/2	1.5005	2.0005	2.177	0.187
2	2.0005	2.5005	2.677	0.187
2-1/2	2.5005	3.2505	3.427	0.187
3	3.0005	3.7505	3.990	0.500



Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

L LENGTH -.030 /- .060	CATALOG NO.							
	I.D. = 3/4"	I.D. = 7/8"	I.D. = 1"	I.D. = 1-1/4"	I.D. = 1-1/2"	I.D. = 2"	I.D. = 2-1/2"	I.D. = 3"
7/8	SBF 06-07	SBF 07-07	SBF 08-07	SBF 10-07	SBF 12-07			
1-3/8	SBF 06-13	SBF 07-13	SBF 08-13	SBF 10-13	SBF 12-13	SBF 16-13	SBF 20-13	
1-7/8	SBF 06-17	SBF 07-17	SBF 08-17	SBF 10-17	SBF 12-17	SBF 16-17	SBF 20-17	
2-3/8	SBF 06-23	SBF 07-23	SBF 08-23	SBF 10-23	SBF 12-23	SBF 16-23	SBF 20-23	
2-7/8	SBF 06-27	SBF 07-27	SBF 08-27	SBF 10-27	SBF 12-27	SBF 16-27	SBF 20-27	
3-3/8	SBF 06-33	SBF 07-33	SBF 08-33	SBF 10-33	SBF 12-33	SBF 16-33	SBF 20-33	
3-7/8	SBF 06-37	SBF 07-37	SBF 08-37	SBF 10-37	SBF 12-37	SBF 16-37	SBF 20-37	SBF 24-37
4-3/8	SBF 06-43	SBF 07-43	SBF 08-43	SBF 10-43	SBF 12-43	SBF 16-43	SBF 20-43	
4-7/8	SBF 06-47	SBF 07-47	SBF 08-47	SBF 10-47	SBF 12-47	SBF 16-47	SBF 20-47	SBF 24-47
5-7/8	SBF 06-57	SBF 07-57	SBF 08-57	SBF 10-57	SBF 12-57	SBF 16-57	SBF 20-57	SBF 24-57
7-7/8								SBF 24-77

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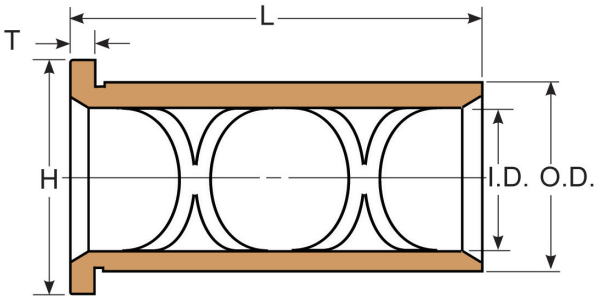
Shoulder Bushings- Bronze Plated



- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Perfect for mold alignment
- Contains internal grease grooves

PCS Bronze-Plated Shoulder Bushings are precision ground. Nominal diameters ranging from 3/4" to 3" are available. PCS Bronze-Plated Shoulder Bushings reduce friction on leader pins and are press-fit into place. Included internal grease grooves help prevent galling which aids in a smooth operation.

SPECIFICATIONS				
NOMINAL I.D.	I.D. +.0005 / - .0000	O.D. +.0005 / - .0000	H +.00 / -.01	T +.000 / - .005
3/4	0.7505	1.1255	1.302	0.187
7/8	0.8755	1.2505	1.427	0.187
1	1.0005	1.3755	1.552	0.187
1-1/4	1.2505	1.6255	1.802	0.187
1-1/2	1.5005	2.0005	2.177	0.187
2	2.0005	2.5005	2.677	0.187
2-1/2	2.5005	3.2505	3.427	0.187
3	3.0005	3.7505	3.990	0.500



Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

L LENGTH -.030 /- .060	CATALOG NO.							
	I.D. = 3/4"	I.D. = 7/8"	I.D. = 1"	I.D. = 1-1/4"	I.D. = 1-1/2"	I.D. = 2"	I.D. = 2-1/2"	I.D. = 3"
7/8	LBB 06-07	LBB 07-07	LBB 08-07	LBB 10-07	LBB 12-07			
1-3/8	LBB 06-13	LBB 07-13	LBB 08-13	LBB 10-13	LBB 12-13	LBB 16-13	LBB 20-13	
1-7/8	LBB 06-17	LBB 07-17	LBB 08-17	LBB 10-17	LBB 12-17	LBB 16-17	LBB 20-17	
2-3/8	LBB 06-23	LBB 07-23	LBB 08-23	LBB 10-23	LBB 12-23	LBB 16-23	LBB 20-23	
2-7/8	LBB 06-27	LBB 07-27	LBB 08-27	LBB 10-27	LBB 12-27	LBB 16-27	LBB 20-27	
3-3/8	LBB 06-33	LBB 07-33	LBB 08-33	LBB 10-33	LBB 12-33	LBB 16-33	LBB 20-33	
3-7/8	LBB 06-37	LBB 07-37	LBB 08-37	LBB 10-37	LBB 12-37	LBB 16-37	LBB 20-37	LBB 24-37
4-3/8	LBB 06-43	LBB 07-43	LBB 08-43	LBB 10-43	LBB 12-43	LBB 16-43	LBB 20-43	
4-7/8	LBB 06-47	LBB 07-47	LBB 08-47	LBB 10-47	LBB 12-47	LBB 16-47	LBB 20-47	LBB 24-47
5-7/8	LBB 06-57	LBB 07-57	LBB 08-57	LBB 10-57	LBB 12-57	LBB 16-57	LBB 20-37	LBB 24-57
7-7/8								LBB 24-77

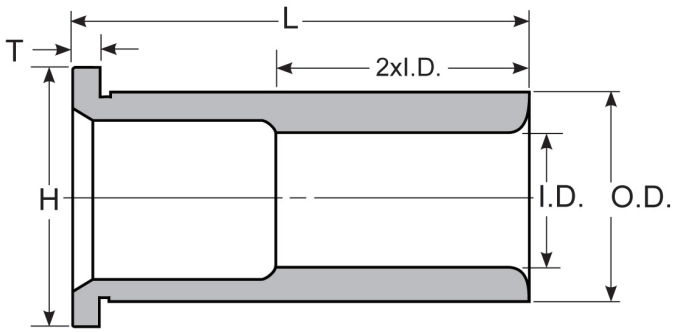
Shoulder Bushings - Hardened & Precision Ground

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Case-Hardened



PCS Shoulder Bushings are hardened and precision ground. Nominal diameters ranging from 3/4" to 3" are available. PCS Shoulder Bushings reduce friction on leader pins and are press-fit into place.

SPECIFICATIONS				
NOMINAL I.D.	I.D. +.0005 / - .0000	O.D. +.0005 / - .0000	H MAX	T +.000 / - .005
3/4	0.7505	1.1255	1.1255	0.187
7/8	0.8755	1.2505	1.1.375	0.187
1	1.0005	1.3755	1.500	0.187
1-1/4	1.2505	1.6255	1.750	0.187
1-1/2	1.5005	2.0005	2.125	0.187
2	2.0005	2.5005	2.625	0.187
2-1/2	2.5005	3.2505	3.375	0.187
3	3.0005	3.7505	3.937	0.500



Standard: Inch
Material: 4130
Hardness: 58 - 62 Rc

L LENGTH -.030 /- .060	CATALOG NO.							
	I.D. = 3/4"	I.D. = 7/8"	I.D. = 1"	I.D. = 1-1/4"	I.D. = 1-1/2"	I.D. = 2"	I.D. = 2-1/2"	I.D. = 3"
7/8	BU-100	BU-200	BU-300	BU-400	BU-500			
1-3/8	BU-101	BU-201	BU-301	BU-401	BU-501	BU-601	BU-701	
1-7/8	BU-102	BU-202	BU-302	BU-402	BU-502	BU-602	BU-702	
2-3/8	BU-103	BU-203	BU-303	BU-403	BU-503	BU-603	BU-703	
2-7/8	BU-104	BU-204	BU-304	BU-404	BU-504	BU-604	BU-704	
3-3/8	BU-105	BU-205	BU-305	BU-405	BU-505	BU-605	BU-705	
3-7/8	BU-106	BU-206	BU-306	BU-406	BU-506	BU-606	BU-706	BU-806
4-3/8			BU-307	BU-407	BU-507	BU-607	BU-707	
4-7/8		BU-208	BU-308	BU-408	BU-508	BU-608	BU-708	BU-808
5-7/8		BU-209	BU-309	BU-409	BU-509	BU-609	BU-709	BU-809
7-7/8								BU-811

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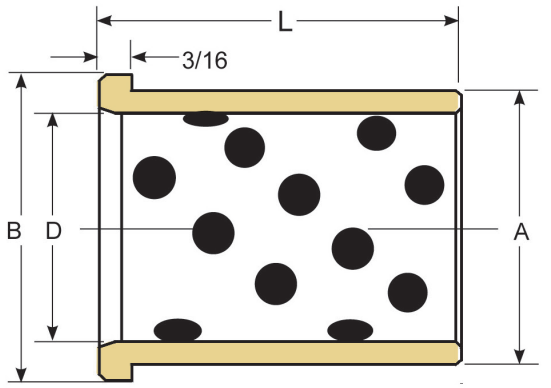
Shoulder Bushings- Self-Lubricating



- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Perfect for mold alignment
- Solid bronze with graphite plugs

PCS Self-Lubricating Shoulder Bushings are solid bronze with graphite plugs. Nominal diameters ranging from 3/4" to 3" are available. PCS Self-Lubricating Shoulder Bushings reduce friction on leader pins and are press-fit into place. These bushings do not require grease which makes them great for food-grade, medical and high-speed applications.

SPECIFICATIONS	
A O.D. Tolerance	+.0005 -.0000
B Head Diameter Tolerance	+ 0 / - .010
D I.D. Tolerance	+.0005 / -.0000
Head Thickness Tolerance	+ 0 / -.010
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S750-7G	3/4	.7505	1.1255	1.30	7/8
S750-11G					1-3/8
S750-15G					1-7/8
S750-19G					2-3/8
S750-23G					2-7/8
S750-27G					3-3/8
S750-31G					3-7/8
S750-35G					4-3/8
S750-39G					4-7/8
S875-7G	7/8	.8755	1.2505	1.43	7/8
S875-11G					1-3/8
S875-15G					1-7/8
S875-19G					2-3/8
S875-23G					2-7/8
S875-27G					3-3/8
S875-31G					3-7/8
S875-35G					4-3/8

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S1000-7G	1	1.0005	1.3755	1.55	7/8
S1000-11G					1-3/8
S1000-15G					1-7/8
S1000-19G					2-3/8
S1000-23G					2-7/8
S1000-27G					3-3/8
S1000-31G					3-7/8
S1000-35G					4-3/8
S1000-39G					4-7/8
S1000-47G					5-7/8

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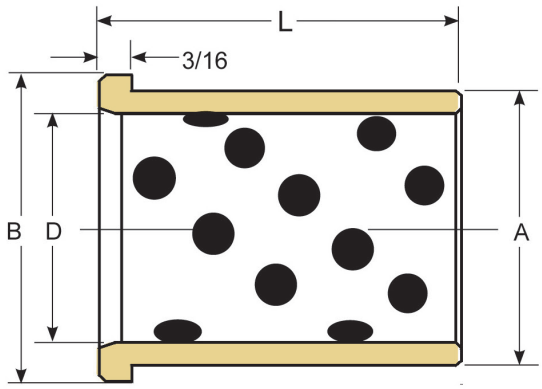
Shoulder Bushings- Self-Lubricating

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Perfect for mold alignment
- Solid bronze with graphite plugs



PCS Self-Lubricating Shoulder Bushings are solid bronze with graphite plugs. Nominal diameters ranging from 3/4" to 3" are available. PCS Self-Lubricating Shoulder Bushings reduce friction on leader pins and are press-fit into place. These bushings do not require grease which makes them great for food-grade, medical and high-speed applications.

SPECIFICATIONS	
A O.D. Tolerance	+.0005 -.0000
B Head Diameter Tolerance	+ 0 / - .010
D I.D. Tolerance	+.0005 / -.0000
Head Thickness Tolerance	+ 0 / -.010
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S1250-7G	1-1/4	1.2505	1.6255	1.80	7/8
S1250-11G					1-3/8
S1250-15G					1-7/8
S1250-19G					2-3/8
S1250-23G					2-7/8
S1250-27G					3-3/8
S1250-31G					3-7/8
S1250-35G					4-3/8
S1250-39G					4-7/8
S1250-47G					5-7/8

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S1500-7G	1-1/2	1.5005	2.0005	2.18	7/8
S1500-11G					1-3/8
S1500-15G					1-7/8
S1500-19G					2-3/8
S1500-23G					2-7/8
S1500-27G					3-3/8
S1500-31G					3-7/8
S1500-35G					4-3/8
S1500-39G					4-7/8
S1500-47G					5-7/8

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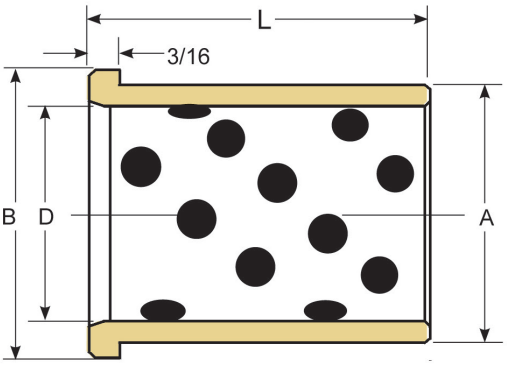
Shoulder Bushings- Self-Lubricating



- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Perfect for mold alignment
- Solid bronze with graphite plugs

PCS Self-Lubricating Shoulder Bushings are solid bronze with graphite plugs. Nominal diameters ranging from 3/4" to 3" are available. PCS Self-Lubricating Shoulder Bushings reduce friction on leader pins and are press-fit into place. These bushings do not require grease which makes them great for food-grade, medical and high-speed applications.

SPECIFICATIONS	
A O.D. Tolerance	+.0005 / -.0000
B Head Diameter Tolerance	+ 0 / - .010
D I.D. Tolerance	+.0005 / -.0000
Head Thickness Tolerance	+ 0 / -.010
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S2000-11G	2	2.0005	2.5005	2.68	1-3/8
S2000-15G					1-7/8
S2000-19G					2-3/8
S2000-23G					2-7/8
S2000-27G					3-3/8
S2000-31G					3-7/8
S2000-35G					4-3/8
S2000-39G					4-7/8
S2000-47G					5-7/8

CATALOG NO.	NOMINAL I.D.	D	A	B	L
S2500-11G	2-1/2	2.5005	3.2505	3.43	1-3/8
S2500-15G					1-7/8
S2500-19G					2-3/8
S2500-23G					2-7/8
S2500-27G					3-3/8
S2500-31G					3-7/8
S2500-35G					4-3/8
S2500-39G					4-7/8
S2500-47G					5-7/8
S3000-27G	3	3.0005	3.7505	3.99	3-3/8
S3000-31G					3-7/8
S3000-39G					4-7/8
S3000-47G					5-7/8

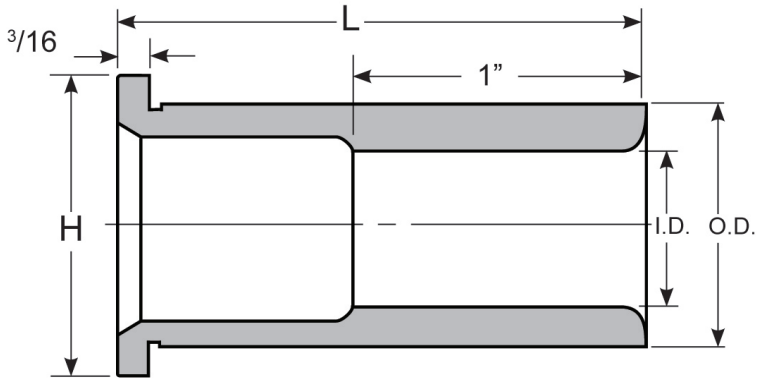
Shoulder Bushings - Small Mold Assemblies

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Perfect for mold alignment

PCS Shoulder Bushings for Small Mold Assemblies are case-hardened. Lengths ranging from 7/8" and 2-3/8" are available with a 1/2" nominal diameter. PCS Shoulder Bushings reduce friction on leader pins and are press-fit into place.



SPECIFICATIONS			
NOMINAL I.D.	I.D. +.0005 / - .0000	O.D. +.0005 / - .0000	H MAX
1/2"	0.500	0.7505	.853

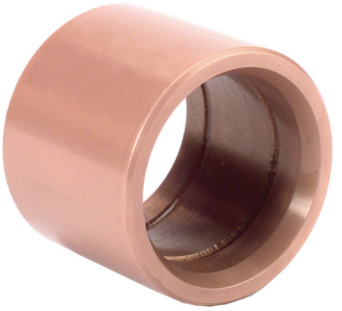


Standard: Inch
Material: 4130
Hardness: 58 - 60 Rc

CATALOG NO.	L OVERALL LENGTH
A-5690	7/8
A-5691	1-3/8
A-5692	1-7/8
A-5693	2-3/8

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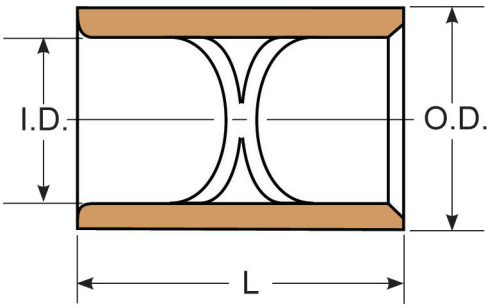
Straight Bushings - Bronze Plated



- Bushings are stocked to dimensions & tolerances shown
- Precision Ground
- Perfect for mold alignment
- Contains internal grease grooves
- Bronze Plated Steel
- For use with leader pins
- Reduce friction

PCS Bronze-Plated Straight Bushings are precision ground. Nominal diameters ranging from 3/4" to 2-1/2" are available. PCS Bronze-Plated Straight Bushings reduce friction on leader pins and are press-fit into place. Included internal grease grooves help prevent galling which aids in a smooth operation.

SPECIFICATIONS	
I.D. Tolerance	+.0005 / -.0000
O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	-.030 / -.060



Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

CATALOG NO.	NOMINAL I.D.	I.D.	O.D.	L OVERALL LENGTH
STB 06-07	3/4	.7505	1.1255	7/8
STB 06-13	3/4	.7505	1.1255	1-3/8
STB 07-13	7/8	.8755	1.2505	1-3/8
STB 08-13	1	1.0005	1.3755	1-3/8
STB 10-13	1-1/4	1.2505	1.6255	1-3/8
STB 10-17	1-1/4	1.2505	1.6255	1-7/8
STB 12-13	1-1/2	1.5005	2.0005	1-3/8
STB 12-17	1-1/2	1.5005	2.0005	1-7/8
STB 16-37	2	2.0005	2.5005	3-7/8
STB 20-47	2-1/2	2.5005	3.2505	4-7/8
STB 24-47	3	3.0005	3.7505	4-7/8

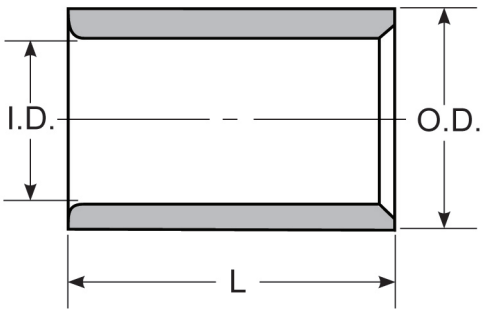
Straight Bushings - Hardened & Precision Ground

- Bushings are stocked to dimensions & tolerances shown
- Case-Hardened
- Perfect for mold alignment
- Press-fit installation
- For use with leader pins
- Reduce friction



PCS Straight Bushings are hardened and precision ground. Nominal diameters ranging from 3/4" to 2-1/2" are available. PCS Straight Bushings reduce friction on leader pins and are press-fit into place.

SPECIFICATIONS	
I.D. Tolerance	+.0005 / -.0000
O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	-.030 / -.060



Standard: Inch
Material: 4130
Hardness: 58 - 62 Rc

CATALOG NO.	NOMINAL I.D.	I.D.	O.D.	L OVERALL LENGTH
ST-100	3/4	0.7505	1.1255	7/8
ST-101	3/4	0.7505	1.1255	1-3/8
ST-200	7/8	0.8755	1.2505	1-3/8
ST-300	1	1.0005	1.3755	1-3/8
ST-400	1-1/4	1.2505	1.6255	1-3/8
ST-401	1-1/4	1.2505	1.6255	1-7/8
ST-500	1-1/2	1.5005	2.0005	1-3/8
ST-501	1-1/2	1.5005	2.0005	1-7/8
ST-600	2	2.0005	2.5005	3-7/8
ST-700	2-1/2	2.5005	3.2505	4-7/8

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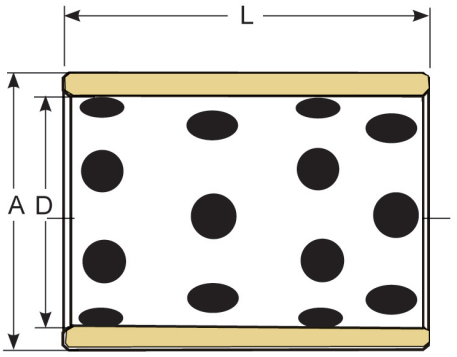
Straight Bushings - Self-Lubricating



- Bushings are stocked to dimensions & tolerances shown
- Solid bronze with graphite plugs
- Perfect for mold alignment
- Greaseless application
- For use with leader pins

PCS Self-Lubricating Straight Bushings are solid bronze with graphite plugs. Nominal diameters ranging from 3/4" to 3" are available. PCS Self-Lubricating Straight Bushings reduce friction on leader pins and are press-fit into place. These bushings do not require grease which makes them great for food-grade, medical and high-speed applications.

SPECIFICATIONS	
D I.D. Tolerance	+.0005 / -.0000
A O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	D	A	L
MS750-7	3/4	.7505	1.1255	7/8
MS750-11				1-3/8
MS750-12				1-1/2
MS875-10	7/8	.8755	1.2505	1-1/4
MS875-12				1-1/2
MS100-10	1	1.0005	1.3755	1-1/4
MS100-11				1-3/8
MS100-12				1-1/2
MS100-14				1-3/4
MS100-16				2
MS100-24				3
MS125-10	1-1/4	1.2505	1.6255	1-1/4
MS125-11				1-3/8
MS125-12				1-1/2
MS125-14				1-3/4
MS125-15				1-7/8
MS125-16				2
MS125-24				3

CATALOG NO.	NOMINAL I.D.	D	A	L
MS150-10	1-1/2	1.5005	2.0005	1-1/4
MS150-11				1-3/8
MS150-12				1-1/2
MS150-14				1-3/4
MS150-15				1-7/8
MS150-16				2
MS150-24				3
MS175-10	1-3/4	1.7505	2.2505	1-1/4
MS175-12				1-1/2
MS175-14				1-3/4
MS175-16				2
MS175-20				2-1/2
MS175-24				3
MS175-28				3-1/2
MS175-32				4

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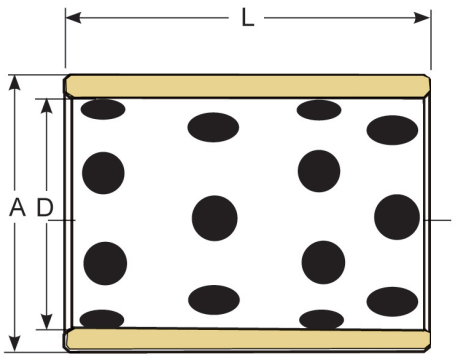
Straight Bushings - Self-Lubricating

- Bushings are stocked to dimensions & tolerances shown
- Solid bronze with graphite plugs
- Perfect for mold alignment
- Greaseless application
- For use with leader pins



PCS Self-Lubricating Straight Bushings are solid bronze with graphite plugs. Nominal diameters ranging from 3/4" to 3" are available. PCS Self-Lubricating Straight Bushings reduce friction on leader pins and are press-fit into place. These bushings do not require grease which makes them great for food-grade, medical and high-speed applications.

SPECIFICATIONS	
D I.D. Tolerance	+.0005 / -.0000
A O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	D	A	L
MS200-10	2	2.005	2.5005	1-1/4
MS200-12				1-1/2
MS200-16				2
MS200-20				2-1/2
MS200-24				3
MS200-31				3-7/8
MS225-12	2-1/4	2.2505	2.7505	1-1/2
MS225-16				2
MS225-20				2-1/2
MS225-24				3
MS250-12	2-1/2	2.5005	3.2505	1-1/2
MS250-16				2
MS250-24				3
MS250-39				4-7/8

CATALOG NO.	NOMINAL I.D.	D	A	L
MS300-16	3	3.0005	3.7505	2
MS300-20				2-1/2
MS300-24				3
MS300-28				3-1/2
MS300-39				4-7/8

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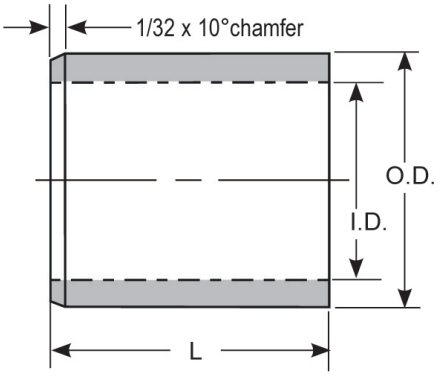
Straight Bushings - Small Mold Assemblies



- Bushings are stocked to dimensions & tolerances shown
- Case-Hardened
- Perfect for mold alignment
- Press-fit installation
- For use with leader pins

PCS Straight Bushings for Small Mold Assemblies are case-hardened. Lengths of 7/8" and 1-3/8" are available with a 1/2" nominal diameter. PCS Straight Bushings reduce friction on leader pins and are press-fit into place.

SPECIFICATIONS	
I.D. Tolerance	+.0005 / -.0000
O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	+.000 / -.060



Standard: Inch
Material: 4130
Hardness: 58 - 62 Rc

CATALOG NO. I.D.= 1/2	L OVERALL LENGTH
A-5498	7/8
A-5499	1-3/8

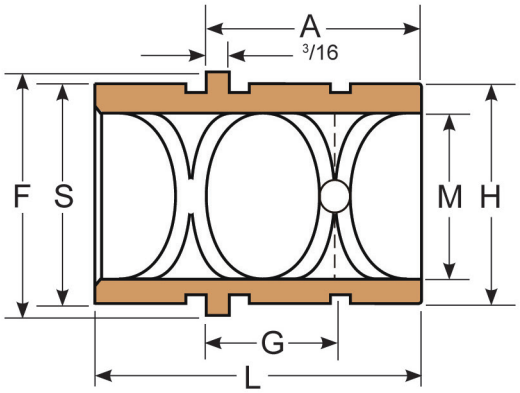
Guided Ejector Bushings - Solid Bronze

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Keeps ejector assembly aligned
- Extends the life of ejection components
- Contains internal grease grooves
- Designed for Counterbore plates & Ejector Retainer plates



PCS Solid Bronze Guided Ejector Bushings are available in nominal diameters ranging from 1/2" to 2". Included internal grease grooves help prevent galling which aids in a smooth operation.

SPECIFICATIONS	
M I.D. Tolerance	+.0005 / -.0000
H Press Fit O.D. Tolerance	+.0005 /-.0000
L Overall Length Tolerance	+.000 / -.062
F Rib O.D. Tolerance	+.000 / -.010
S Slip Fit O.D. Tolerance	+.000 / -.001
A Ejector Plate Length Tolerance	+.000 / -.030
T Rib Thickness	3/16



Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

CATALOG NO.	M I.D.	H PRESS FIT O.D.	L OVERALL LENGTH	F RIB O.D.	S SLIP FIT O.D.	A EJECTOR PLATE LENGTH	G LUBE HOLE LOCATION
BGEB-100	1.001	1.3755	1.75	1.552	1.374	1.12	.62
BGEB-125	1.251	1.6255	1.75	1.802	1.624	1.12	.62
BGEB-500	.501	.7505	1.50	.853	.749	1.00	.56
BGEB-750	.751	1.1255	1.50	1.302	1.124	1.00	.56
BGEB-875	.876	1.2505	1.50	1.427	1.249	1.00	.56

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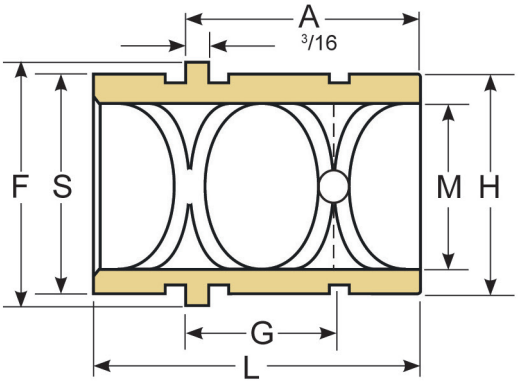
Guided Ejector Bushings - Solid Bronze - Flange



- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Keeps ejector assembly aligned
- Extends the life of ejection components
- Contains internal grease grooves
- Designed for Counterbore plates & Ejector Retainer plates

PCS Solid Bronze Guided Ejector Bushings are available in nominal diameters ranging from 3/4" to 1-1/4"". Included internal grease grooves help prevent galling which aids in a smooth operation. The redesigned flange saves machining time.

SPECIFICATIONS	
M I.D. Tolerance	+.0005 / -.0000
H Press Fit O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	+.000 / -.062
F Rib O.D. Tolerance	+.000 / -.010
S Slip Fit O.D. Tolerance	+.000 / -.001
A Ejector Plate Length Tolerance	+.000 / -.030
T Rib Thickness	3/16
T Rib Thickness Tolerance	+/- .010



Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

CATALOG NO.	M I.D.	H PRESS FIT O.D.	L OVERALL LENGTH	F RIB O.D.	S SLIP FIT O.D.	A EJECTOR PLATE LENGTH	G LUBE HOLE LOCATION
RGEB-750	.751	1.1255	1.50	1.302	1.124	1.187	.747
RGEB-875	.876	1.2505	1.50	1.427	1.249	1.187	.747
RGEB-100	1.001	1.3755	1.75	1.552	1.374	1.312	.807
RGEB-125	1.251	1.6255	1.75	1.802	1.624	1.312	.807

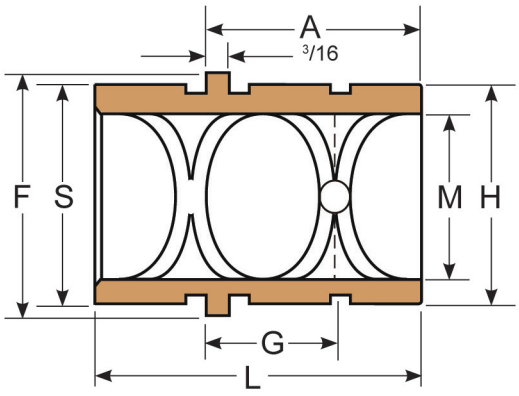
Guided Ejector Bushings - Bronze Plated

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Keeps ejector assembly aligned
- Extends the life of ejection components
- Contains internal grease grooves



PCS Bronze Plated Guided Ejector Bushings are available in nominal diameters ranging from 1/2" to 2". Included internal grease grooves help prevent galling which aids in a smooth operation.

SPECIFICATIONS	
M I.D. Tolerance	+.0005 / -.0000
H Press Fit O.D. Tolerance	+.0005 / -.0000
L Overall Length Tolerance	+.000 / -.062
F Rib O.D. Tolerance	+.000 / -.010
S Slip Fit O.D. Tolerance	+.000 / -.001
A Ejector Plate Length Tolerance	+.000 / -.030
T Rib Thickness	3/16



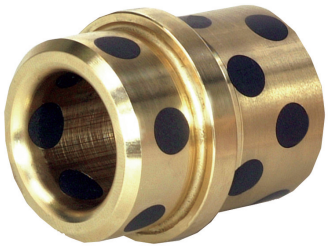
Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

CATALOG NO.	M I.D.	H PRESS FIT O.D.	L OVERALL LENGTH	F RIB O.D.	S SLIP FIT O.D.	A EJECTOR PLATE LENGTH	G LUBE HOLE LOCATION
GEB-100	1.001	1.3755	1.75	1.552	1.374	1.12	.62
GEB-125	1.251	1.6255	1.75	1.802	1.624	1.12	.62
GEB-150	1.501	2.0005	1.75	2.177	1.999	1.12	.62
GEB-200	2.001	2.5005	2.25	2.687	2.499	1.62	.80
GEB-750	.751	1.1255	1.50	1.302	1.124	1.00	.56
GEB-875	.876	1.2505	1.50	1.427	1.249	1.00	.56

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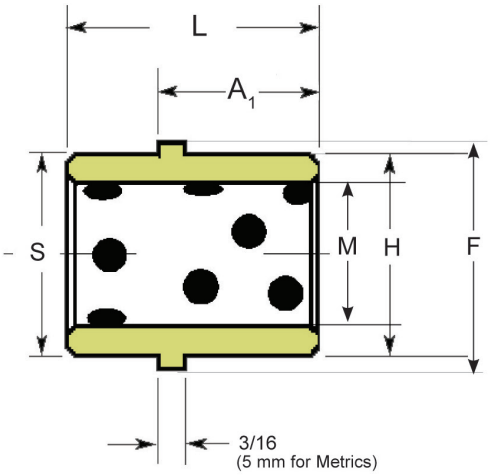
Guided Ejector Bushings - Self-Lubricating

- Bushings are stocked to dimensions & tolerances shown
- Eliminates galling to leader pins
- Keeps ejector assembly aligned
- Extends the life of ejection components



PCS Bronze Self Lubricating Guided Ejector Bushings are available in nominal diameters ranging from 3/4" to 2". The self-lubricating graphite plugs eliminate the need for grease which makes these bushings perfect for food grade, medical and high speed applications.

SPECIFICATIONS	
M I.D. Tolerance	+.0005 / -.0000
H Press Fit O.D. Tolerance	+.0005 / -.0000
S Slip Fit O.D. Tolerance	+.000 / -.001
F Shoulder O.D. Tolerance	+.010 / -.010
A Ejector Plate Length Tolerance	+.00 / -.03
L Overall Length Tolerance	+.00 / -.03
T Rib Thickness	3/16
T Rib Thickness Tolerance	+.010 / -.010



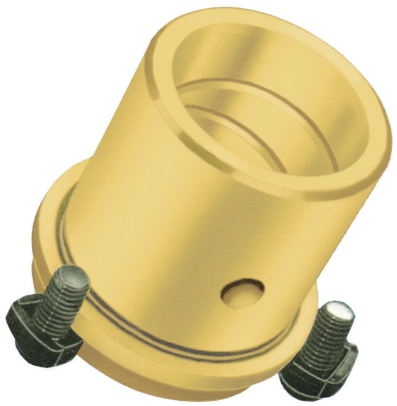
Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	NOMINAL I.D.	M I.D.	H PRESS FIT O.D.	S SLIP FIT O.D.	F RIB O.D.	A EJECTOR PLATE LENGTH	L OVERALL LENGTH
ME-750	3/4	.751	1.1255	1.124	1.302	1	1-1/2
ME-875	7/8	.876	1.2505	1.249	1.427	1	1-1/2
ME-1000	1	1.001	1.3755	1.374	1.552	1-1/8	1-3/4
ME-1000L	1	1.001	1.3755	1.374	1.552	1-5/8	2
ME-1250	1-1/4	1.251	1.6255	1.624	1.802	1-1/8	1-3/4
ME-1250L	1-1/4	1.251	1.6255	1.624	1.802	1-7/8	2-1/2
ME-1500	1-1/2	1.501	2.0005	1.999	2.177	1-1/8	1-3/4
ME-1500L	1-1/2	1.501	2.0005	1.999	2.177	1-7/8	2-1/2
ME-2000	2	2.001	2.5005	2.499	2.687	1-5/8	2-1/4

Die Bushings - Solid Bronze, Grind Stock

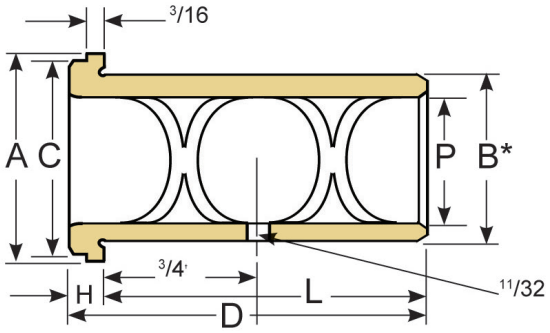
- Supplied with +.015 grind stock
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

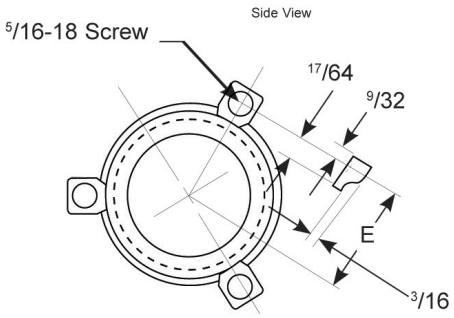
PCS Solid Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.



SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16

I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035





*** Bushings 2-1/2" dia. & larger have 1-1/4" dimension**

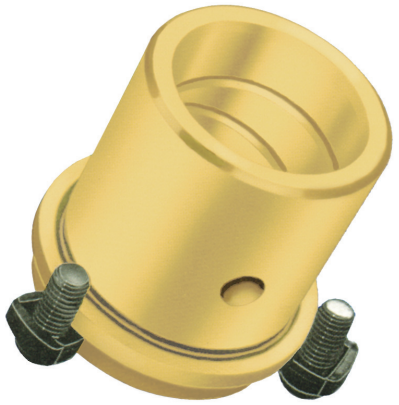
Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SC-750-SB	3/4	1-5/16	1-1/8	1.125	1-9/16	1/2	1-1/16	2	55/64
SC-750-LB	3/4	1-5/16	1-1/8	1.125	2-5/16	1/2	1-13/16	2	55/64
SC-875-SB	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
SC-100-SB	1	1-3/4	1-9/16	1.5	1-7/8	1/2	1-3/8	3	1-5/64
SC-100-LB	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
SC-125-SB	1-1/4	2-1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
SC-125-LB	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
SC-150-SB	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/64
SC-150-LB	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/64
SC-175-SB	1-3/4	2-5/8	2-7/16	2.25	2-7/8	1/2	2-3/8	3	1-33/64
SC-175-LB	1-3/4	2-5/8	2-7/16	2.25	3-7/8	1/2	3-3/8	3	1-33/64
SC-200-SB	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
SC-200-LB	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64
SC-250-SB	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64

Continued on next page

PCS COMPANY
Turn To The Industry Experts

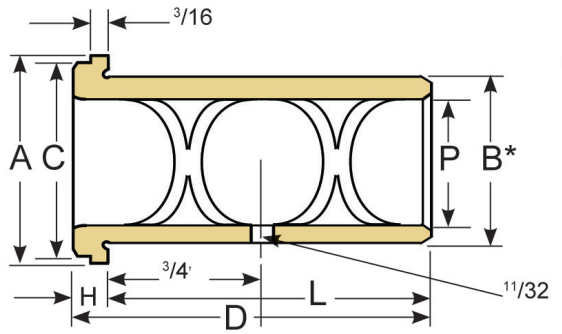
Die Bushings - Solid Bronze, Grind Stock



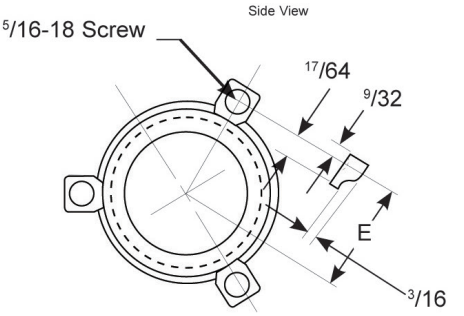
- Supplied with +.015 grind stock
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

PCS Solid Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16



* **Bushings 2-1/2" dia. & larger have 1-1/4" dimension**



I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035

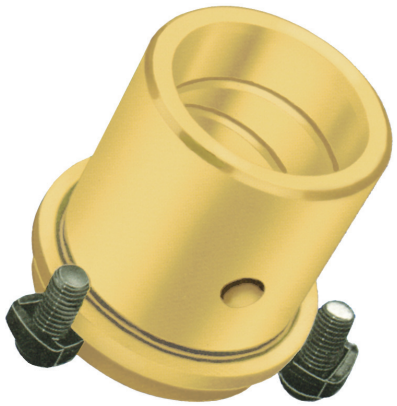
Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SC-250-MB	2-1/2	3-3/8	3-3/16	3	4	3/8	3-5/8	4	1-57/64
SC-250-LB	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
SC-300-SB	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64
SC-300-MB	3	3-7/8	3-11/16	3.5	5	3/8	4-5/8	6	2-9/64
SC-300-LB	3	3-7/8	3-11/16	3.5	6	3/8	5-5/8	6	2-9/64
SC-375-B	3-3/4	4-7/8	4-11/16	4.5	7	3/8	6-5/8	6	2-41/64
SC-450-B	4-1/2	5-7/8	5-11/16	5.5	8	3/8	7-5/8	6	3-9/64

Die Bushings - Solid Bronze, Finish Ground

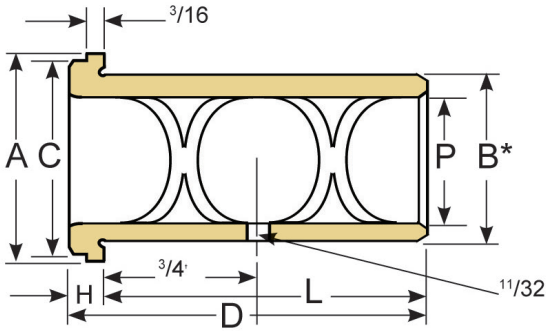
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

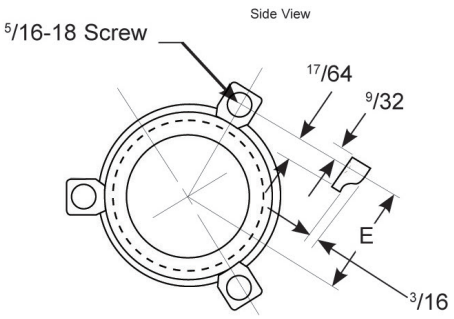
PCS Solid Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.



SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16

I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035





*Bushings 2-1/2" dia. & larger have 1-1/4" dimension

Standard: Inch
Material: AMPCO 18 Bronze
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
GSC-750-SB	3/4	1-5/16	1-1/8	1.125	1-9/16	1/2	1-1/16	2	55/64
GSC-750-LB	3/4	1-5/16	1-1/8	1.125	2-5/16	1/2	1-13/16	2	55/64
GSC-875-SB	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
GSC-100-SB	1	1-3/4	1-9/16	1.5	1-7/8	1/2	1-3/8	3	1-5/64
GSC-100-LB	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
GSC-125-SB	1-1/4	2-1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
GSC-125-LB	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
GSC-150-SB	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/34
GSC-150-LB	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/34
GSC-200-SB	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
GSC-200-LB	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64
GSC-250-SB	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64
GSC-250-MB	2-1/2	3-3/8	3-3/16	3	4	3/8	3-5/8	4	1-57/64
GSC-250-LB	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
GSC-300-SB	3	3-7/8	3-11/16	3.5	3	3/8	2-5/8	6	2-9/64
GSC-300-MB	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64
GSC-375-B	3-3/4	4-7/8	4-11/16	4.5	7	3/8	6-5/8	6	2-41/64

PCS COMPANY
Turn To The Industry Experts

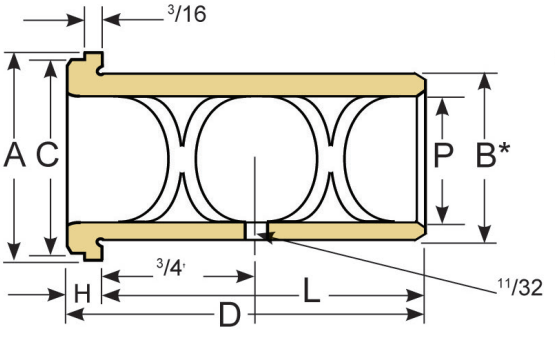
Die Bushings - Bronze Plated, Grind Stock

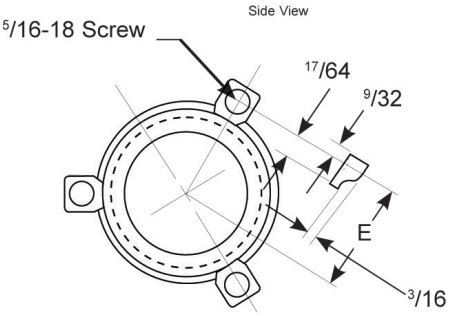


- Supplied with +.015 grind stock
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

PCS Bronze Plated Die Bushings are centrifugally cast and precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Plating Thickness/ per side	0.004 - 0.005
Shoulder Width	3/16





I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035

*** Bushings 2-1/2" dia. & larger have 1-1/4" dimension**

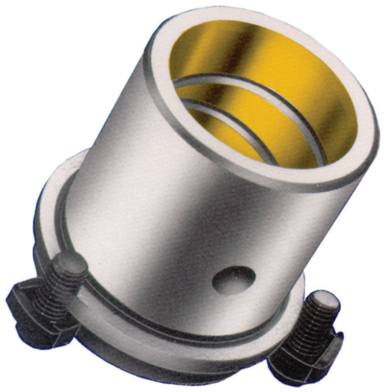
Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SC-750-S	3/4	1-5/16	1-1/8	1.125	1-9/16	1/2	1-1/16	2	55/64
SC-750-L	3/4	1-5/16	1-1/8	1.125	2-5/16	1/2	1-13/16	2	55/64
SC-875-S	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
SC-875-L	7/8	1-9/16	1-3/8	1.375	2-5/16	1/2	1-13/16	2	63/64
SC-100-S	1	1-3/4	1-9/16	1.5	1-7/8	1/2	1-3/8	3	1-5/64
SC-100-L	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
SC-125-S	1-1/4	2-1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
SC-125-L	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
SC-150-S	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/64
SC-150-L	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/64
SC-175-S	1-3/4	2-5/8	2-7/16	2.25	2-7/8	1/2	2-3/8	3	1-33/64
SC-175-L	1-3/4	2-5/8	2-7/16	2.25	3-7/8	1/2	3-3/8	3	1-33/64
SC-200-S	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
SC-200-L	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64

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Die Bushings - Bronze Plated, Grind Stock

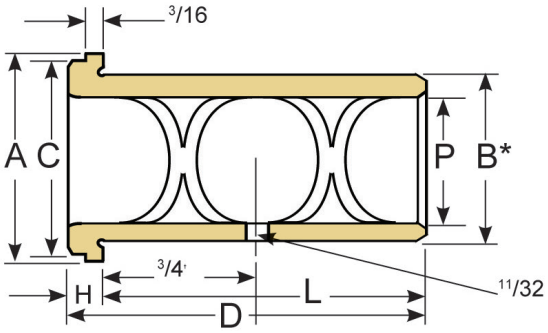
- Supplied with +.015 grind stock
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

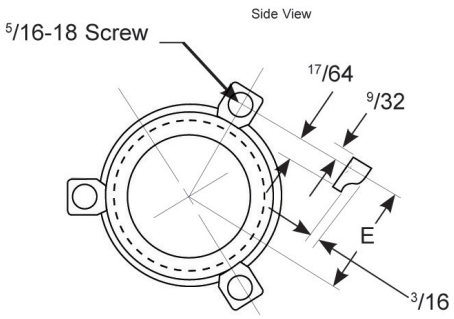


PCS Bronze Plated Die Bushings are centrifugally cast and precision ground. Nominal diameters ranging from 3/4” to 4-1/2” are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Plating Thickness/ per side	0.004 - 0.005
Shoulder Width	3/16

I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035





*** Bushings 2-1/2” dia. & larger have 1-1/4” dimension**

Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SC-250-S	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64
SC-250-M	2-1/2	3-3/8	3-3/16	3	4	3/8	3-5/8	4	1-57/64
SC-250-L	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
SC-300-S	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64
SC-300-M	3	3-7/8	3-11/16	3.5	5	3/8	4-5/8	6	2-9/64
SC-300-L	3	3-7/8	3-11/16	3.5	6	3/8	5-5/8	6	2-9/64

PCS COMPANY
Turn To The Industry Experts

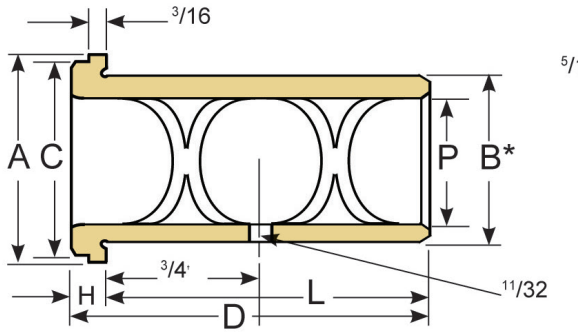
Die Bushings - Bronze Plated, Finish Ground

- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side

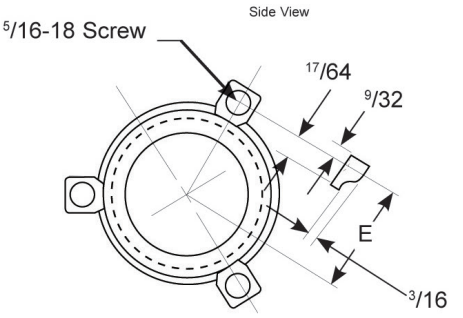


PCS Bronze Plated Die Bushings are centrifugally cast and precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. Included internal grease grooves help prevent galling which aids in a smooth operation. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	+.0000 / -.0002
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16



* Bushings 2-1/2" dia. & larger have 1-1/4" dimension



I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035

Standard: Inch
Material: Bronze Plated Steel
Hardness: 180 Brinell

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
GSC-750-S	3/4	1-5/16	1-1/8	1.125	1-9/16	1/2	1-1/16	2	55/64
GSC-875-S	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
GSC-875-L	7/8	1-9/16	1-3/8	1.375	2-5/16	1/2	1-13/16	2	63/64
GSC-100-L	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
GSC-125-S	1-1/4	2/1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
GSC-125-L	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
GSC-150-S	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/64
GSC-150-L	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/64
GSC-200-S	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
GSC-200-L	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64
GSC-250-S	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64
GSC-250-M	2-1/2	3-3/8	3-3/16	3	4	3/8	3-5/8	4	1-57/64
GSC-250-L	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
GSC-300-S	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64
GSC-300-M	3	3-7/8	3-11/16	3.5	5	3/8	4-5/8	6	2-9/64
GSC-300-L	3	3-7/8	3-11/16	3.5	6	3/8	5-5/8	6	2-9/64

Die Bushings - Bronze Self-Lubricating, Grind Stock

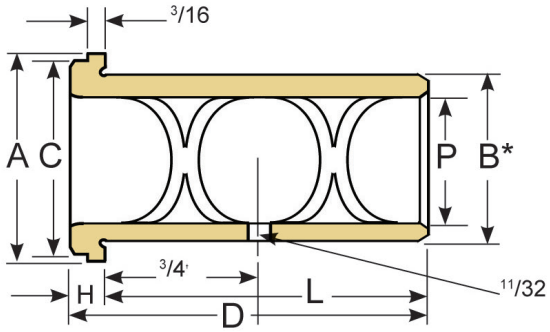
- Supplied with +.015 grind stock
- Plating thickness .004 - .005 per side
- D-clamps & D-screws are included
- Greaseless application

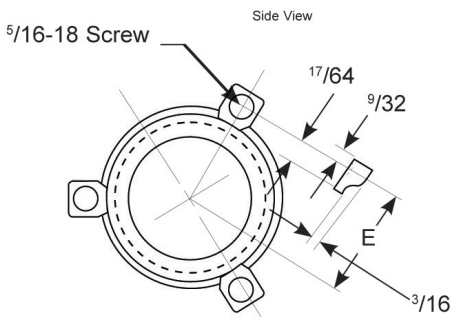


PCS Self Lubricating Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. The self-lubricating graphite plugs eliminate the need for grease which makes these bushings perfect for food grade, medical and high speed applications. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	+.0000 / -.0002
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16

I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035





*** Bushings 2-1/2" dia. & larger have 1-1/4" dimension**

Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SCB-750-S	3/4	1-5/16	1-1/8	1.125	1-9/16	1/2	1-1/16	2	55/64
SCB-750-L	3/4	1-5/16	1-1/8	1.125	2-5/16	1/2	1-13/16	2	55/64
SCB-875-S	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
SCB-875-L	7/8	1-9/16	1-3/8	1.375	2-5/16	1/2	1-13/16	2	63/64
SCB-100-S	1	1-3/4	1-9/16	1.5	1-7/8	1/2	1-3/8	3	1-5/64
SCB-100-L	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
SCB-125-S	1-1/4	2-1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
SCB-125-L	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
SCB-150-S	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/64
SCB-150-L	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/64
SCB-175-S	1-3/4	2-5/8	2-7/16	2.25	2-7/8	1/2	2-3/8	3	1-33/64
SCB-175-L	1-3/4	2-5/8	2-7/16	2.25	3-7/8	1/2	3-3/8	3	1-33/64
SCB-200-S	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
SCB-200-L	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64

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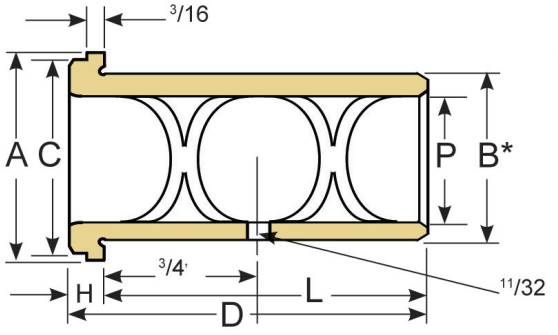
Die Bushings - Bronze Self-Lubricating, Grind Stock

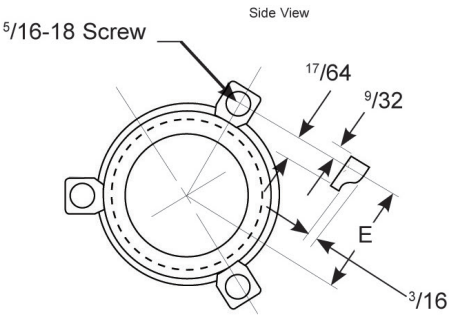


- Supplied with +.015 grind stock
- Plating thickness .004 - .005 per side
- D-clamps & D-screws are included
- Greaseless application

PCS Self Lubricating Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. The self-lubricating graphite plugs eliminate the need for grease which makes these bushings perfect for food grade, medical and high speed applications. D-Clamps and D-Screws are included with each bushing.

SPECIFICATIONS	
B Press Fit O.D. Tolerance	+.0000 / -.0002
D Overall Length Tolerance	+.000 / -.010
H Head Thickness Tolerance	+.000 / -.010
Shoulder Width	3/16





I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035

*** Bushings 2-1/2" dia. & larger have 1-1/4" dimension**

Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
SCB-250-S	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64
SCB-250-M	2-1/2	3-3/8	3-3/16	3	4	3/8	3-5/8	4	1-57/64
SCB-250-L	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
SCB-300-X	3	3-7/8	3-11/16	3.5	3	3/8	2-5/8	6	2-9/64
SCB-300-S	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64
SCB-300-M	3	3-7/8	3-11/16	3.5	5	3/8	4-5/8	6	2-9/64
SCB-300-L	3	3-7/8	3-11/16	3.5	6	3/8	5-5/8	6	2-9/64
SCB-375-S	3-3/4	4-7/8	4-11/16	4.5	7	3/8	6-5/8	6	2-41/64

Die Bushings - Self-Lubricating, Finish Ground

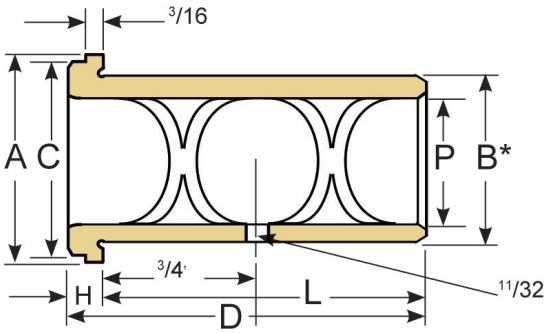
- D-clamps & D-screws are included
- Plating thickness .004 - .005 per side
- Perfect for mold or die alignment
- Greaseless application

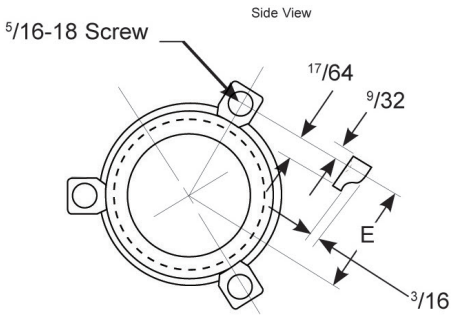
PCS Self Lubricating Bronze Die Bushings are precision ground. Nominal diameters ranging from 3/4" to 4-1/2" are available. The self-lubricating graphite plugs eliminate the need for grease which makes these bushings perfect for food grade, medical and high speed applications. D-Clamps and D-Screws are included with each bushing.



SPECIFICATIONS	
B Press Fit O.D. Tolerance	-.0002 / -.0005
D Overall Length Tolerance	+.000 / -.010
L Overall Length Tolerance	+.000 / -.010
Shoulder Width	3/16

I.D. TOLERANCES	
3/4 to 1-1/2	+.0006 +.0010
1-3/4 & 2	+.0007 +.0012
2-1/2	+.0012 +.0018
3	+.0014 +.0023
3-3/4	+.0018 +.0028
4-1/2	+.0025 +.0035





*** Bushings 2-1/2" dia. & larger have 1-1/4" dimension**

Standard: Inch
Material: AMPCO 18 Bronze with graphite plugs
Hardness: 92 Brinell Typical

CATALOG NO.	P I.D.	A HEAD DIAMETER	C RIB O.D.	B PRESS FIT O.D.	D OVERALL LENGTH	H HEAD THICKNESS	L WRING FIT LENGTH	# OF CLAMPS & SCREWS	E CLAMP SCREW RADIUS OFF CENTERLINE
GSCB-875-S	7/8	1-9/16	1-3/8	1.375	1-9/16	1/2	1-1/16	2	63/64
GSCB-100-S	1	1-3/4	1-9/16	1.5	1-9/16	1/2	1-3/8	3	1-5/64
GSCB-100-L	1	1-3/4	1-9/16	1.5	2-7/8	1/2	2-3/8	3	1-5/64
GSCB-125-S	1-1/4	2-1/8	1-15/16	1.75	2-3/8	1/2	1-7/8	3	1-17/64
GSCB-125-L	1-1/4	2-1/8	1-15/16	1.75	3-3/8	1/2	2-7/8	3	1-17/64
GSCB-150-S	1-1/2	2-3/8	2-3/16	2	2-3/8	1/2	1-7/8	3	1-25/64
GSCB-150-L	1-1/2	2-3/8	2-3/16	2	3-3/8	1/2	2-7/8	3	1-25/64
GSCB-175-L	1-3/4	2-5/8	2-7/116	2.25	3-7/8	1/2	3-3/8	3	1-33/64
GSCB-200-S	2	2-15/16	2-3/4	2.5	2-7/8	1/2	2-3/8	4	1-43/64
GSCB-200-L	2	2-15/16	2-3/4	2.5	3-7/8	1/2	3-3/8	4	1-43/64
GSCB-250-S	2-1/2	3-3/8	3-3/16	3	3	3/8	2-5/8	4	1-57/64
GSCB-250-L	2-1/2	3-3/8	3-3/16	3	5	3/8	4-5/8	4	1-57/64
GSCB-300-S	3	3-7/8	3-11/16	3.5	4	3/8	3-5/8	6	2-9/64

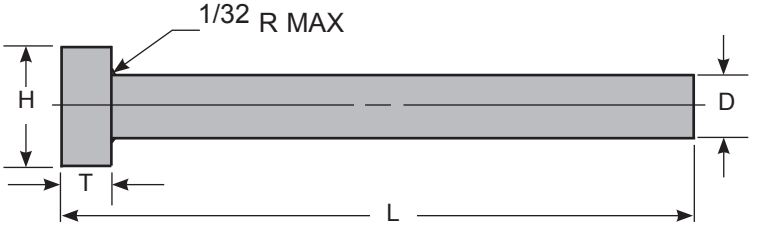
PCS COMPANY
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Soft Core Pins



- Hot forged heads
- Etched for identification
- Core pins 6” and longer have annealed heads
- We cut pins to length

SPECIFICATIONS	
Core Hardness	30 - 35 Rc
Surface Hardness	30 - 35 Rc
Etched for Identification	Yes
Material Type	Hot Work Tool Steel
Unit of Measure	Inch



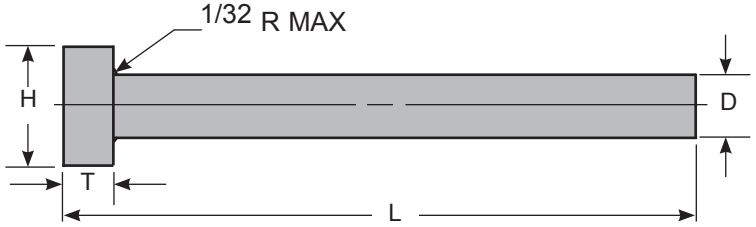
D PIN DIA +.0005 / +.0010	H HEAD DIA +.000 / -.010	T HEAD THICK. +.000 / -.010	L OVERALL LENGTH +.062 / -.000			
			3”	6”	10”	14”
3/32	1/4	1/8	CPS7-3	CPS7-6	CPS7-10	CPS7-14
7/64	1/4	1/8	CPS8-3	CPS8-6	CPS8-10	CPS8-14
1/8	1/4	1/8	CPS9-3	CPS9-6	CPS9-10	CPS9-14
9/64	1/4	1/8	CPS10-3	CPS10-6	CPS10-10	CPS10-14
5/32	9/32	5/32	CPS11-3	CPS11-6	CPS11-10	CPS11-14
11/64	11/32	3/16	CPS12-3	CPS12-6	CPS12-10	CPS12-14
3/16	3/8	3/16	CPS13-3	CPS13-6	CPS13-10	CPS13-14
13/64	3/8	3/16	CPS14-3	CPS14-6	CPS14-10	CPS14-14
7/32	13/32	3/16	CPS15-3	CPS15-6	CPS15-10	CPS15-14
1/4	7/16	3/16	CPS17-3	CPS17-6	CPS17-10	CPS17-14
9/32	7/16	1/4	CPS19-3	CPS19-6	CPS19-10	CPS19-14
5/16	1/2	1/4	CPS21-3	CPS21-6	CPS21-10	CPS21-14
11/32	9/16	1/4	CPS23-3	CPS23-6	CPS23-10	CPS23-14
3/8	5/8	1/4	CPS25-3	CPS25-6	CPS25-10	CPS25-14
13/32	11/16	1/4	CPS27-3	CPS27-6	CPS27-10	CPS27-14
7/16	11/16	1/4	CPS29-3	CPS29-6	CPS29-10	CPS29-14
15/32	3/4	1/4	CPS31-3	CPS31-6	CPS31-10	CPS31-14
1/2	3/4	1/4	CPS33-3	CPS33-6	CPS33-10	CPS33-14
9/16	13/16	1/4	CPS35-3	CPS35-6	CPS35-10	CPS35-14
5/8	7/8	1/4	CPS37-3	CPS37-6	CPS37-10	CPS37-14
3/4	1	1/4	CPS41-3	CPS41-6	CPS41-10	CPS41-14
7/8	1-1/8	1/4		CPS45-6	CPS45-10	CPS45-14
1	1-1/4	1/4		CPS47-6	CPS47-10	CPS47-14

Hard Core Pins

- Premium hot work steel
- Hot forged heads
- Etched for identification
- Core pins 6” and longer have annealed heads
- We cut pins to length



SPECIFICATIONS	
Core Hardness	50 - 55 Rc
Surface Hardness	50 - 55 Rc
Etched for Identification	Yes
Material Type	Hot Work Tool Steel
Unit of Measure	Inch



D PIN DIA +.0005 / +.0010	H HEAD DIA +.000 / -.010	T HEAD THICK. +.000 / -.010	L OVERALL LENGTH +.062 / -.000			
			3”	6”	10”	14”
3/32	1/4	1/8	CPH7-3	CPH7-6	CPH7-10	CPH7-14
7/64	1/4	1/8	CPH8-3	CPH8-6	CPH8-10	CPH8-14
1/8	1/4	1/8	CPH9-3	CPH9-6	CPH9-10	CPH9-14
9/64	1/4	1/8	CPH10-3	CPH10-6	CPH10-10	CPH10-14
5/32	9/32	5/32	CPH11-3	CPH11-6	CPH11-10	CPH11-14
11/64	11/32	3/16	CPH12-3	CPH12-6	CPH12-10	CPH12-14
3/16	3/8	3/16	CPH13-3	CPH13-6	CPH13-10	CPH13-14
13/64	3/8	3/16	CPH14-3	CPH14-6	CPH14-10	CPH14-14
7/32	13/32	3/16	CPH15-3	CPH15-6	CPH15-10	CPH15-14
1/4	7/16	3/16	CPH17-3	CPH17-6	CPH17-10	CPH17-14
9/32	7/16	1/4	CPH19-3	CPH19-6	CPH19-10	CPH19-14
5/16	1/2	1/4	CPH21-3	CPH21-6	CPH21-10	CPH21-14
11/32	9/16	1/4	CPH23-3	CPH23-6	CPH23-10	CPH23-14
3/8	5/8	1/4	CPH25-3	CPH25-6	CPH25-10	CPH25-14
13/32	11/16	1/4	CPH27-3	CPH27-6	CPH27-10	CPH27-14
7/16	11/16	1/4	CPH29-3	CPH29-6	CPH29-10	CPH29-14
15/32	3/4	1/4	CPH31-3	CPH31-6	CPH31-10	CPH31-14
1/2	3/4	1/4	CPH33-3	CPH33-6	CPH33-10	CPH33-14
9/16	13/16	1/4	CPH35-3	CPH35-6	CPH35-10	CPH35-14
5/8	7/8	1/4	CPH37-3	CPH37-6	CPH37-10	CPH37-14
3/4	1	1/4	CPH41-3	CPH41-6	CPH41-10	CPH41-14
7/8	1-1/8	1/4		CPH45-6	CPH45-10	CPH45-14
1	1-1/4	1/4		CPH47-6	CPH47-10	CPH47-14

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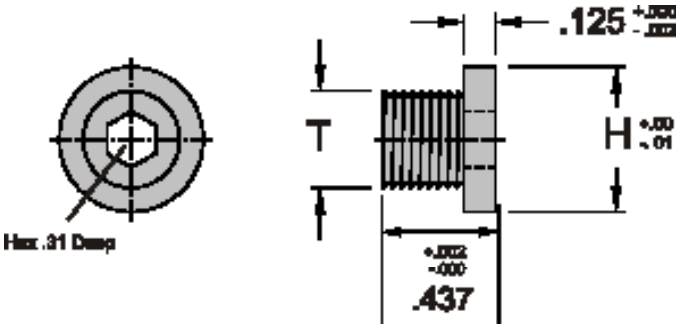
Core Pin Retainers - Steel



- Better alternative to the common set screw
- Covenient hex key installation
- For use with PCS Core Pins

Core Pin Retainers are made of hardened steel. These retainers eliminate the need for back up plates and are a better alternative than the common set screw. Four sizes are available to more closely match the core pin diameter.

SPECIFICATIONS	
H Head Diameter Tolerance	+.00 / -.01
Head Thickness Tolerance	+.000 / -.002
L Overall Length Tolerance	+.002 / -.000
Unit of Measure	Inch



CATALOG NO.	H HEAD DIAMETER	T SCREW SIZE	HEX SIZE	RECOMMENDED CORE PINS
CPR-375	.56	3/8-24	3/16	3/32 thru 5/32 Diameter Pins
CPR-500	.68	1/2-20	1/4	11/64 thur 9/32 Diameter Pins
CPR-750	.93	3/4-16	3/8	5/16 thru 7/16 Diameter Pins
CPR-875	1.06	7/8-14	3/8	15/32 thru 9/16 Diameter Pins

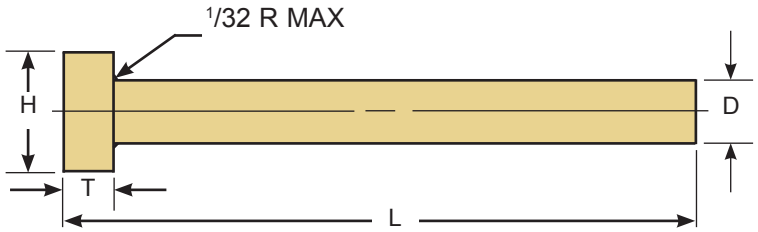
Copper Alloy Core Pins

- Resists corrosion, galling, and seizing
- Rapid and uniform heat removal reduces post cycle shrinkage and warpage
- Allows for shorter cycle times with enhanced dimensional control
- Superior thermal conductivity
- Special diameters available upon request



PCS Copper Alloy Core Pins are made of high strength alloyed copper with superior ther-mal conductivity. Due to its rapid and uniform heat removal properties, this pin helps to reduce post cycle shrinkage and warpage. Copper alloy core pin diameters range from 1/8” to 3/4” and lengths range from 4” to 18”.

SPECIFICATIONS	
Hardness	36 - 42 Rc
Material Type	Alloyed Copper
Unit of Measure	Inch



Material	Thermal Conductivity	Wear Resistance	Thermal Expansion	Hardness	Weldability	Machinability	Polishability	Corrosion Resistance	Total Score
	4	7	9.0	7	10	7	10	10	55
P20 Tool Steel	1	5	6.5	6	4	3	5	5	29
Hardened Steel	1	10	6.5	10	2	1	2	5	31
420 Stainless	1	5	6.5	6	4	2	4	8	30

D PIN DIA +.000 -.001	H HEAD DIA +.000 -.015	T HEAD THICK. +.000 -.002	L OVERALL LENGTH +.062 / -.000						
			3”	4”	6”	8”	12”	14”	18”
.1250	1/4	1/8		CPM9-4		CPM9-8	CPM9-12		CPM9-18
.1563	9/32	5/32	CPM11-3	CPM11-4	CPM11-6	CPM11-8	CPM11-12		CPM11-18
.1875	3/8	3/16	CPM13-3	CPM13-4		CPM13-8	CPM13-12	CPM13-14	CPM13-18
.2188	13/32	3/16		CPM15-4	CPM15-6	CPM15-8	CPM15-12	CPM15-14	CPM15-18
.2500	7/16	3/16		CPM17-4	CPM17-6	CPM17-8	CPM17-12	CPM17-14	CPM17-18
.2812	7/16	1/4		CPM19-4	CPM19-6	CPM19-8	CPM19-12		CPM19-18
.3125	1/2	1/4		CPM21-4	CPM21-6	CPM21-8	CPM21-12		CPM21-18
.3750	5/8	1/4		CPM25-4		CPM25-8	CPM25-12	CPM25-14	CPM25-18
.4375	11/16	1/4		CPM29-4		CPM29-8	CPM29-12		CPM29-18
.5000	3/4	1/4		CPM33-4		CPM33-8	CPM33-12		CPM33-18
.5625	13/16	1/4		CPM35-4		CPM35-8	CPM35-12		CPM35-18
.6250	7/8	1/4		CPM37-4		CPM37-8	CPM37-12		CPM37-18
.7500	1	1/4		CPM41-4		CPM41-8	CPM41-12		CPM41-18

PCS COMPANY
Turn To The Industry Experts

Dowel Pins



- Heat treated for greater strength and surface hardness
- Chamfered end provides easier insertion
- Aligns plates within mold base
- Hardened steel construction
- Precision ground .0002 over-sized

PCS Dowel Pins are precision ground and are available in nominal diameters ranging from 1/8” to 1”. These Dowel Pins are heat treated for greater strength and surface hardness. The chamfered edges allow for easy insertion into the reamed hole.

SPECIFICATIONS	
Chamfer	45 Deg x .030
Material Type	Alloy Steel
Unit of Measure	Inch

LENGTH	CATALOG NO.								
	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
3/8	DP9-375								
1/2	DP9-500	DP13-500	DP17-500						
3/4	DP9-750	DP13-750	DP17-750		DP25-750				
1	DP9-1000	DP13-1000	DP17-1000	DP21-1000	DP25-1000	DP33-1000			
1-1/4			DP17-1250	DP21-1250	DP25-1250	DP33-1250			
1-1/2		DP13-1500	DP17-1500	DP21-1500	DP25-1500	DP33-1500	DP37-1500		
2	DP9-2000	DP13-2000	DP17-2000	DP21-2000	DP25-2000	DP33-2000	DP37-2000	DP41-2000	DP47-2000
2-1/2			DP17-2500		DP25-2500	DP33-2500	DP37-2500	DP41-2500	
3					DP25-3000	DP33-3000	DP37-3000	DP41-3000	DP47-3000
4						DP33-4000	DP37-4000	DP41-4000	DP47-4000
5							DP37-5000	DP41-5000	DP47-5000

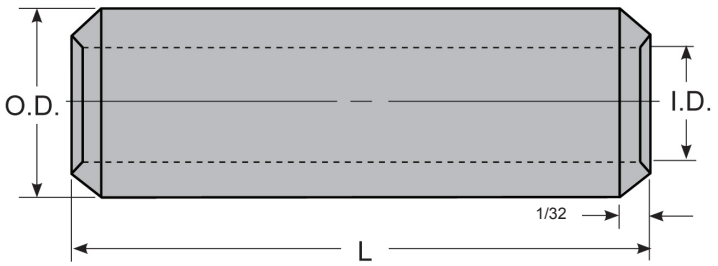
Tubular Dowel Pins

- Aligns the “B” plate, support plate and ejector housing
- Allows more room for waterlines by superimposing the dowel pin & cap screw
- Hardened steel construction

Tubular Dowel Pins are hardened and precision ground. They are used to align the B Plate, Support Plate and ejector housing. Tubular Dowels allow more room for cooling channels by superimposing the dowel pin and cap screw.



SPECIFICATIONS	
Chamfer	1/32
Material Type	Alloy Steel
Unit of Measure	Inch



CATALOG NO.	NOMINAL DIA.	O.D. +.0002 / -.0000	I.D +.015 / -.000	L OVERALL LENGTH +.000 / -.010
TD3-375	3/8	0.3752	0.260	0.375
TD3-875		0.3752	0.260	0.875
TD6-500	5/8	0.6252	0.385	0.500
TD6-1375		0.6252	0.385	1.375
TD6-1875		0.6252	0.385	1.875
TD6-2375		0.6252	0.385	2.375
TD7-375	3/4	0.7502	0.510	0.375
TD7-500		0.7502	0.510	0.500
TD7-1375		0.7502	0.510	1.375
TD7-1875		0.7502	0.510	1.875
TD7-2375		0.7502	0.510	2.375
TD7-2875		0.7502	0.510	2.875
TD7-3375		0.7502	0.510	3.375
TD7-3875		0.7502	0.510	3.875
TD8-500	7/8	0.8752	0.635	0.500
TD8-2375		0.8752	0.635	2.375
TD8-2875		0.8752	0.635	2.875

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Flat Head Cap Screws



- Ideal for thin sections where heads cannot protrude
- Enables fastening with flush finish
- Standard 82° angle underneath head

Flat Head Cap Screws are used in countersunk holes. These screws are useful in tools and dies where moving parts pass over the fastened area.

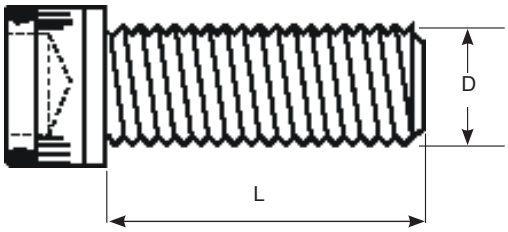
SPECIFICATIONS	
Material Type	Alloy Steel / Thermal Black Oxide Coated
Thread Class	3A

CATALOG NO.	D THREAD DIAMETER	E THREAD LENGTH	H HEAD DIAMETER	SIZE OF HEX KEY
FHCS1024-500	10-24	1/2	Min: 0.117 Max: 0.138	0.035
FHCS1024-625		5/8		
FHCS1024-750		3/4		
FHCS1720-500	1/4-20	1/2	Min: 0.480 Max: 0.531	0.156
FHCS1720-625		5/8		
FHCS1720-750		3/4		
FHCS1720-875		7/8	Min: 0.480 Max: 0.531	0.156
FHCS1720-1000		1	Min: 0.480 Max: 0.531	0.156
FHCS1720-1250		1 1/4		
FHCS2118-500	5/16-18	1/2	Min: 0.600 Max: 0.656	0.188
FHCS2118-875		7/8	Min: 0.600 Max: 0.656	0.188

Socket Head Cap Screws

- Material: High quality alloy steel
- Heat Treatment: 38 - 43 Rc
- Tensile Strength: 180,000 psi
- Thread Class: 3A





CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS0440-250F	No. 4	40	1/4
CS0440-375			3/8
CS0440-500			1/2
CS0440-750			3/4
CS0440-1000			1
CS0540-250	No. 5	40	1/4
CS0632-250	No. 6	32	1/4
CS0632-375			3/8
CS0632-500			1/2
CS0632-625			5/8
CS0632-750			3/4
CS0632-875			7/8
CS0632-1000			1
CS0832-250L	No. 8	32	1/4
CS0832-250			1/4
CS0832-375			3/8
CS0832-500			1/2
CS0832-625			5/8
CS0832-750			3/4
CS0832-875			7/8
CS0832-1000			1
CS0832-1250			1-1/4
CS1024-375	No. 10	24	3/8
CS1024-500			1/2
CS1024-625			5/8
CS1024-750			3/4
CS1024-875			7/8
CS1024-1000			1
CS1024-1250			1-1/4
CS1024-1500			1-1/2
CS1024-1750			1-3/4
CS1024-2000			2

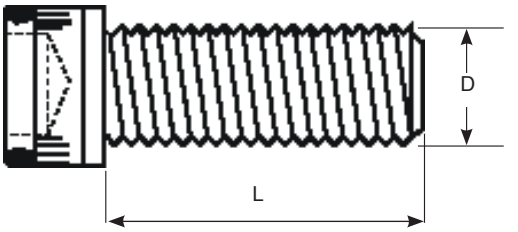
CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS1032-375	No. 10	32	3/8”
CS1032-500			1/2
CS1032-625			5/8
CS1032-750			3/4
CS1032-875			7/8
CS1032-1000			1
CS1032-1250			1-1/4
CS1032-1500			1-1/2
CS1032-1750			1-3/4
CS1032-2000			2
CS1032-2250			2-1/4
CS1720-375	1/4	20	3/8
CS1720-500			1/2
CS1720-625			5/8
CS1720-750			3/4
CS1720-875			7/8
CS1720-1000			1
CS1720-1250			1-1/4
CS1720-1500			1-1/2
CS1720-1750			1-3/4
CS1720-2000			2
CS1720-2250			2-1/4
CS1720-2500			2-1/2
CS1720-2750			2-3/4
CS1720-3000			3
CS1720-3250			3-1/4
CS1720-3500			3-1/2
CS1720-4000			4
CS1720-4500			4-1/2
CS2118-500	5/16	18	1/2
CS2118-625			5/8
CS2118-750			3/4

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Socket Head Cap Screws



- Material: High quality alloy steel
- Heat Treatment: 38 - 43 Rc
- Tensile Strength: 180,000 psi
- Thread Class: 3A



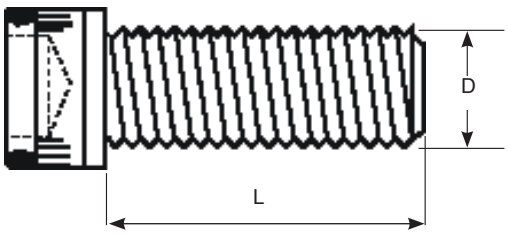
CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS2118-875	5/16	18	7/8
CS2118-1000			1
CS2118-1250			1-1/4
CS2118-1500			1-1/2
CS2118-1750			1-3/4
CS2118-2000			2
CS2118-2250			2-1/4
CS2118-2500			2-1/2
CS2118-2750			2-3/4”
CS2118-3000			3
CS2118-3250			3-1/4
CS2118-3500			3-1/2
CS2118-4000			4
CS2118-5500			5-1/2
CS2516-1000SP	3/8	16	1
CS2516-500			1/2
CS2516-625			5/8
CS2516-750			3/4
CS2516-875			7/8
CS2516-1000			1
CS2516-1250			1-1/4
CS2516-1500			1-1/2
CS2516-1750			1-3/4
CS2516-2000			2
CS2516-2250			2-1/4
CS2516-2500			2-1/2
CS2516-2750			2-3/4
CS2516-3000			3
CS2516-3250			3-1/4
CS2516-3500			3-1/2
CS2516-4000			4
CS2516-4500			4-1/2

CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS2516-5000	3/8	16	5
CS2516-6000			6
CS2516-6500			6-1/2
CS3313-500	1/2	13	1/2
CS3313-625			5/8
CS3313-750			3/4
CS3313-875			7/8
CS3313-1000			1
CS3313-1250			1-1/4
CS3313-1500			1-1/2
CS3313-1750			1-3/4
CS3313-2000			2
CS3313-2250			2-1/4
CS3313-2500			2-1/2
CS3313-2750			2-3/4
CS3313-3000			3
CS3313-3250			3-1/4
CS3313-3500			3-1/2
CS3313-3750			3-3/4
CS3313-4000			4
CS3313-4250			4-1/4
CS3313-4500			4-1/2
CS3313-4750			4-3/4
CS3313-5000			5
CS3313-5250			5-1/4
CS3313-5500			5-1/2
CS3313-5750			5-3/4
CS3313-6000			6
CS3313-6500			6-1/2
CS3313-7000			7
CS3313-7500			7-1/2
CS3313-8000			8

Continued on next page

Socket Head Cap Screws

- Material: High quality alloy steel
- Heat Treatment: 38 - 43 Rc
- Tensile Strength: 180,000 psi
- Thread Class: 3A





CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS3313-8500	1/2	13	8-1/2
CS3313-9000			9
CS3313-9500			9-1/2
CS3313-10000			10
CS3313-10500			10-1/2
CS3313-12000			12
CS3711-1000	5/8	11	1
CS3711-1250			1-1/4
CS3711-1500			1-1/2
CS3711-1750			1-3/4
CS3711-2000			2
CS3711-2250			2-1/4
CS3711-2500			2-1/2
CS3711-2750			2-3/4
CS3711-3000			3
CS3711-3250			3-1/4
CS3711-3500			3-1/2
CS3711-3750			3-3/4
CS3711-4000			4
CS3711-4250			4-1/4
CS3711-4500			4-1/2
CS3711-4750			4-3/4
CS3711-5000			5
CS3711-5500			5-1/2
CS3711-6000			6
CS3711-6500			6-1/2
CS3711-7000			7
CS3711-7500			7-1/2
CS3711-8000			8
CS3711-8500			8-1/2
CS3711-9000			9
CS3711-10000			10
CS3711-11000			11

CATALOG NO.	D THREAD DIAMETER	THREADS PER INCH	L LENGTH
CS3711-12000	5/8	11	12
CS4110-2000	3/4	10	2
CS4110-2250			2-1/4
CS4110-2500			2-1/2
CS4110-2750			2-3/4
CS4110-3000			3
CS4110-3250			3-1/4
CS4110-3500			3-1/2
CS4110-4000			4
CS4110-4500			4-1/2
CS4110-5000			5
CS4110-5500			5-1/2
CS4110-6000			6
CS4110-6500			6-1/2
CS4110-7000			7
CS4110-8000			8
CS4110-9000			9
CS4110-10000			10
CS4110-12000			12
CS4708-1500	1	8	1-1/2
CS4708-2000			2
CS4708-2500			2-1/2
CS4708-3000			3
CS4708-3500			3-1/2
CS4708-4000			4
CS4708-4500			4-1/2
CS4708-5000			5
CS4708-5500			5-1/2
CS4708-6000			6
CS4708-7000			7
CS4708-8000			8

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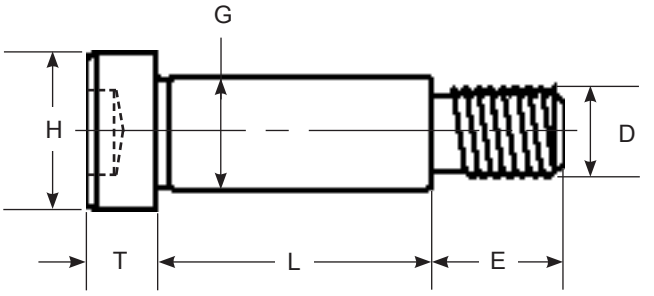
Socket Head Shoulder Screws - Stripper Bolt



- Material: High quality alloy steel
- Heat Treatment: 36 - 43 Rc
- Tensile Strength: 160,000 psi
- Thread Class: 3A

Socket Head Shoulder Screws are made of a high grade alloy steel. These class 3A coarse type screws have a high tensile strength and a surface hardness of 36 - 43 Rc.

GENERAL DIMENSIONS						
SHOULDER DIAMETER	**1/4**	**5/16**	**3/8**	**1/2**	**5/8**	**3/4**
D THREAD	#10-24	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11
E THREAD LENGTH	3/8	7/16	1/2	5/8	3/4	7/8
H HEAD DIAMETER	3/8	7/16	9/16	3/4	7/8	1
T HEAD HEIGHT	3/16	7/32	1/4	5/16	3/8	1/2
SIZE OF HEX KEY	1/8	5/32	3/16	1/4	5/16	3/8



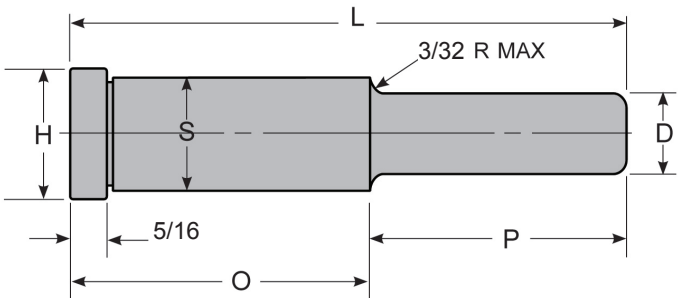
L SHOULDER LENGTH	G SHOULDER DIAMETER					
	1/4	**5/16**	**3/8**	**1/2**	**5/8**	**3/4**
1	SB17-1000	SB21-1000	SB25-1000	SB33-1000		
1-1/4	SB17-1250	SB21-1250	SB25-1250	SB33-1250	SB37-1250	
1-1/2	SB17-1500	SB21-1500	SB25-1500	SB33-1500	SB37-1500	SB41-1500
1-3/4		SB21-1750	SB25-1750	SB33-1750	SB37-1750	SB41-1750
2		SB21-2000	SB25-2000	SB33-2000	SB37-2000	SB41-2000
2-1/4			SB25-2250	SB33-2250	SB37-2250	SB41-2250
2-1/2			SB25-2500	SB33-2500	SB37-2500	SB41-2500
2-3/4			SB25-2750	SB33-2750	SB37-2750	SB41-2750
3			SB25-3000	SB33-3000	SB37-3000	SB41-3000
3-1/4			SB25-3250	SB33-3250	SB37-3250	SB41-3250
3-1/2			SB25-3500	SB33-3500	SB37-3500	SB41-3500
3-3/4			SB25-3750	SB33-3750	SB37-3750	SB41-3750
4			SB25-4000	SB33-4000	SB37-4000	SB41-4000
4-1/4				SB33-4250	SB37-4250	SB41-4250
4-1/2				SB33-4500	SB37-4500	SB41-4500
4-3/4				SB33-4750	SB37-4750	SB41-4750
5				SB33-5000	SB37-5000	SB41-5000
5-1/2				SB33-5500	SB37-5500	SB41-5500
6				SB33-6000	SB37-6000	SB41-6000
7						SB41-7000

Shoulder Leader Pins - Standard

- Provide initial alignment of cavity and core halves
- Press-fit installation

SPECIFICATIONS	
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch





GENERAL DIMENSIONS			
NOMINAL DIA	D +.0000 -.0005	S +.0005 -.0000	H MAX +.000 -.010
3/4	.749	1.126	1.250
1	.999	1.376	1.500
1-1/4	1.249	1.626	1.750

CATALOG NO.			O PRESS FIT LENGTH	P PIN LENGTH	L OVERALL LENGTH -.030 / -.060
D = 3/4	D = 1	D = 1-1/4			
W-0707			7/8	7/8	1-3/4
W-0713				1-3/8	2-1/4
W-0723				2-3/8	3-1/4
W-0727	Y-0727			2-7/8	3-3/4
W-1307	Y-1307		1-3/8	7/8	2-1/4
W-1313	Y-1313	Z-1333		1-3/8	2-3/4
W-1317	Y-1317			1-7/8	3-1/4
W-1323	Y-1327			2-3/8	3-3/4
W-1327				2-7/8	4-1/4
W-1333	Y-1333			3-3/8	4-3/4
W-1707			1-7/8	7/8	2-3/4
W-1713	Y-1713	Z-1713		1-3/8	3-1/4
W-1717	Y-1717			1-7/8	3-3/4
W-1723	Y-1723	Z-1723		2-3/8	4-1/4
W-1727	Y-1727	Z-1727		2-7/8	4-3/4
W-1733	Y-1733			3-3/8	5-1/4
W-1737	Y-1737	Z-1737		3-7/8	5-3/4
W-2307			2-3/8	7/8	3-1/4
W-2313	Y-2313			1-3/8	3-3/4
W-2317	Y-2317			1-7/8	4-1/4
W-2323	Y-2323			2-3/8	4-3/4
W-2327	Y-2327	Z-2327		2-7/8	6-1/4
	Y-2333			3-3/8	5-3/4
W-2337	Y-2337	Z-2337		3-7/8	6-1/4

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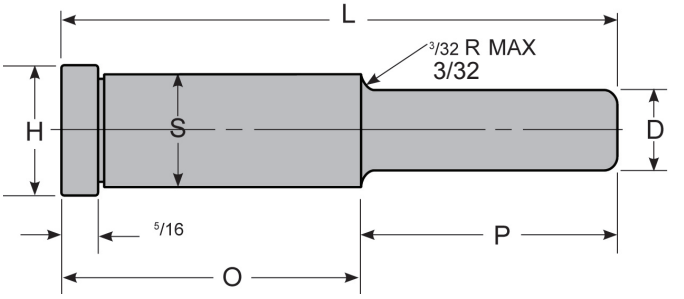
Shoulder Leader Pins - Standard

- Provide initial alignment of cavity and core halves
- Press-fit installation



SPECIFICATIONS	
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch

GENERAL DIMENSION			
NOMINAL DIA	D +.0000 -.0005	S +.0005 -.0000	H MAX +.000 -.010
3/4	.749	1.126	1.250
1	.999	1.376	1.500
1-1/4	1.249	1.626	1.750



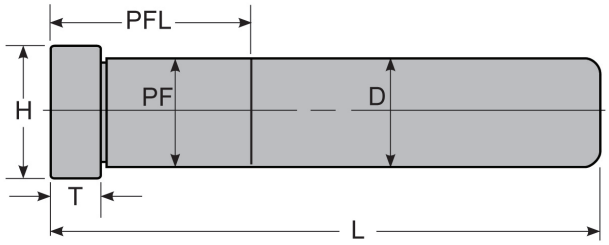
CATALOG NO.			O PRESS FIT LENGTH	P PIN LENGTH	L OVERALL LENGTH -.030 / -.060
D = 3/4	D = 1	D = 1-1/4			
W-2713	Y-2717		2-7/8	1-3/8	4-1/4
W-2717	Y-2723			1-7/8	4-3/4
W-2723	Y-2727	Z-2723		2-3/8	5-1/4
W-2727				2-7/8	5-3/4
	Y-2733			3-3/8	6-1/4
W-2737	Y-2737			3-7/8	6-3/4
	Y-2743	Z-2743		4-3/8	
W-3317	Y-3317		3-3/8	1-7/8	5-1/4
W-3323	Y-3323	Z-3323		2-3/8	5-3/4
	Y-3327			2-7/8	6-1/4
W-3333	Y-3333	Z-3333		3-3/8	6-3/4
	Y-3343	Z-3343		4-3/8	7-3/4
W-3723	Y-3723		3-7/8	2-3/8	6-1/4
W-3727	Y-3727	Z-3727		2-7/8	6-3/4
	Y-3737	Z-3737		3-7/8	7-3/4
	Y-3747	Z-3747		4-7/8	8-3/4
	Y-4327			2-7/8	7-1/4
	Y-4337		4-3/8	3-7/8	8-1/4
	Y-4343			4-3/8	8-3/4
		Z-4347		4-7/8	9-1/4
	Y-4737		4-7/8	3-7/8	8-3/4
	Y-4743			4-3/8	9-1/4
	Y-4747	Z-4747		4-7/8	9-3/4
		Z-4757		5-7/8	10-3/4
	Y-5737	Z-5737	5-7/8	3-7/8	9-3/4
		Z-5743		4-3/8	10-1/4
	Y-5757	Z-5757		5-7/8	11-3/4

Straight Leader Pins - Standard

- Provide initial alignment of cavity and core halves
- Press-fit installation

SPECIFICATIONS	
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch





GENERAL DIMENSIONS				
NOMINAL DIA.	D +.0000 -.0005	PF +.0005 -.0000	H +.000 -.010	T +.000 -.005
3/4	.749	.751	.990	3/16
7/8	.874	.876	1.115	1/4
1	.999	1.001	1.240	1/4
1-1/4	1.249	1.251	1.490	5/16

L -.031 -.062	D = 3/4		D = 7/8		D = 1		D = 1-1/4		L -.031 -.062
	PFL	CATALOG NO.	PFL	CATALOG NO.	PFL	CATALOG NO.	PFL	CATALOG NO.	
1-3/4	7/8	100-GL	7/8	200-GL	7/8	300-GL			1-3/4
2-1/4	7/8	101-GL	7/8	201-GL	7/8	301-GL			2-1/4
2-3/4	7/8	102-GL	7/8	202-GL	7/8	302-GL	7/8	402-GL	2-3/4
3-1/4	7/8	103-GL	7/8	203-GL	7/8	303-GL	7/8	403-GL	3-1/4
3-3/4	7/8	104-GL	7/8	204-GL	7/8	304-GL	7/8	404-GL	3-3/4
4-1/4	1-1/4	105-GL	1-1/4	205-GL	1-1/4	305-GL	7/8	405-GL	4-1/4
4-3/4	1-1/4	106-GL	1-1/4	206-GL	1-1/4	306-GL	1-1/4	406-GL	4-3/4
5-1/4	1-1/4	107-GL	1-1/4	207-GL	1-1/4	307-GL	1-1/4	407-GL	5-1/4
5-3/4	1-1/4	108-GL	1-1/4	208-GL	1-1/4	308-GL	1-1/4	408-GL	5-3/4
6-1/4	1-1/4	109-GL	1-1/4	209-GL	1-1/4	309-GL	1-1/4	409-GL	6-1/4
6-3/4	1-1/4	110-GL	1-1/4	210-GL	1-1/4	310-GL	1-1/4	410-GL	6-3/4
7-1/4	1-1/4	111-GL	1-1/4	211-GL	1-1/4	311-GL	1-1/4	411-GL	7-1/4
7-3/4	1-1/4	112-GL	1-1/4	212-GL	1-1/4	312-GL	1-1/4	412-GL	7-3/4
8-1/4		113-GL	1-1/4	213-GL	1-1/4	313-GL	1-1/4	413-GL	8-1/4
8-3/4		114-GL	1-1/4	214-GL	1-1/4	314-GL	1-1/4	414-GL	8-3/4
9-1/4	1-1/4	115-GL	1-1/4	215-GL	1-1/4	315-GL	1-1/4	415-GL	9-1/4
9-3/4		116-GL		216-GL	1-1/4	316-GL	1-1/4	416-GL	9-3/4
10-1/4		117-GL		217-GL	1-1/4	317-GL	1-1/4	417-GL	10-1/4
10-3/4		118-GL	1-1/4	218-GL	1-1/4	318-GL	1-1/4	418-GL	10-3/4
11-1/4				219-GL	1-1/4	319-GL	1-1/4	419-GL	11-1/4
11-3/4				220-GL	1-1/4	320-GL	1-1/4	420-GL	11-3/4
12-1/4			1-1/4	221-GL	1-1/4	321-GL	1-1/4	421-GL	12-1/4
12-3/4							1-1/4	422-GL	12-3/4
13-3/4							1-1/4	423-GL	13-3/4
14-3/4							1-1/4	424-GL	14-3/4
15-3/4							1-1/4	425-GL	15-3/4

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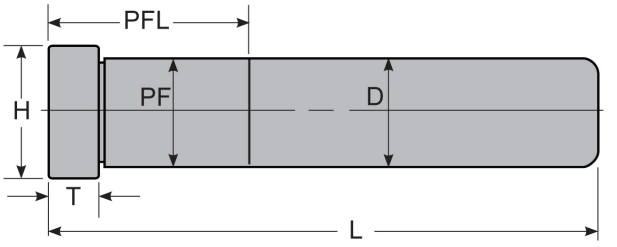
Straight Leader Pins - Standard

- Provide initial alignment of cavity and core halves
- Press-fit installation



SPECIFICATIONS	
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch

GENERAL DIMENSIONS				
NOMINAL DIA.	D +.0000 -.0005	PF +.0005 -.0000	H +.000 -.010	T +.000 -.005
1-1/2	1.499	1.501	1.740	5/16
2	1.999	2.001	2.240	5/16
2-1/2	2.499	2.501	2.740	5/16
3	2.999	3.001	3.365	1/2



L -.031 -.062	D = 1-1/2		D = 2		D = 2-1/2		D = 3		L -.031 -.062
	PFL	CATALOG NO.	PFL	CATALOG NO.	PFL	CATALOG NO.	PFL	CATALOG NO.	
3-3/4	1-1/4	504-GL							3-3/4
4-1/4	1-1/4	505-GL							4-1/4
4-3/4	1-1/4	506-GL							4-3/4
5-1/4	1-1/4	507-GL							5-1/4
5-3/4	1-1/4	508-GL	1-7/8	608-GL	2-3/8	708-GL			5-3/4
6-1/4	1-1/4	509-GL							6-1/4
6-3/4	1-1/4	510-GL	1-7/8	610-GL	2-3/8	710-GL			6-3/4
7-1/4									7-1/4
7-3/4	1-1/4	512-GL	1-7/8	612-GL	2-3/8	712-GL			7-3/4
8-1/4									8-1/4
8-3/4	1-1/4	514-GL	1-7/8	614-GL	2-3/8	714-GL			8-3/4
9-1/4									9-1/4
9-3/4	1-1/4	516-GL	1-7/8	616-GL	2-3/8	716-GL			9-3/4
10-1/4									10-1/4
10-3/4	1-1/4	518-GL	1-7/8	618-GL	2-3/8	718-GL			10-3/4
11-1/4									11-1/4
11-3/4	1-1/4	520-GL	1-7/8	620-GL	2-3/8	720-GL			11-3/4
12-1/4									12-1/4
12-3/4	1-1/4	522-GL	1-7/8	622-GL	2-3/8	722-GL	2-7/8	822-GL	12-3/4
13-3/4	1-1/4	523-GL	1-7/8	623-GL	2-3/8	723-GL			13-3/4
14-3/4	1-1/4	524-GL	1-7/8	624-GL	2-3/8	724-GL	2-7/8	824-GL	14-3/4
15-3/4	1-1/4	525-GL	1-7/8	625-GL	2-3/8	725-GL			15-3/4
16-3/4			2-3/8	628-GL	2-3/8	728-GL	2-7/8	828-GL	16-3/4
18-3/4			2-3/8	630-GL	2-3/8	730-GL	2-7/8	830-GL	18-3/4

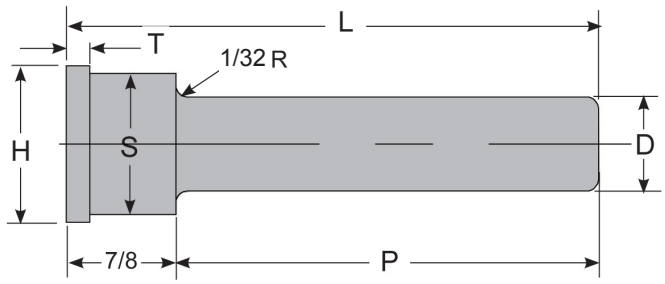
Shoulder Leader Pins - Guided Ejector

- Provide initial alignment of cavity and core halves
- Press-fit installation
- Tolerances allow for mating with any standard PCS bushings
- Case hardened steel
- Designed for 7/8” Bottom Clamp Plate



Leader Pins provide initial alignment of cavity and core halves. PCS Shoulder Guided Ejector Leader Pins are manufactured from 4150 steel. These pins come standard with a 7/8” press-fit length. These leader pins can be used with PCS standard bushings.

SPECIFICATIONS	
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch



CATALOG NO.	NOMINAL DIA.	ACTUAL PIN DIAMETER +.0000 / -.0005	S PRESS FIT DIAMETER +.0005/-.0000	P PIN LENGTH	L OVERALL LENGTH -.030/-.060	H HEAD DIAMETER +.000/-.010	T HEAD THICK +.000/-.015
004-GSP	1/2	0.499	0.751	2-7/8	3-3/4	0.853	.187
005-GSP		0.499	0.751	3-3/8	4-1/4	0.853	.187
006-GSP		0.499	0.751	3-7/8	4-3/4	0.853	.187
007-GSP		0.499	0.751	4-3/8	5-1/4	0.853	.187
105-GSP	3/4	0.749	1.126	3-3/8	4-1/4	1.250	.312
106-GSP		0.749	1.126	3-7/8	4-3/4	1.250	.312
107-GSP		0.749	1.126	4-3/8	5-1/4	1.250	.312
108-GSP		0.749	1.126	4-7/8	5-3/4	1.250	.312
305-GSP	1	0.999	1.376	3-3/8	4-1/4	1.500	.312
306-GSP		0.999	1.376	3-7/8	4-3/4	1.500	.312
307-GSP		0.999	1.376	4-3/8	5-1/4	1.500	.312
308-GSP		0.999	1.376	4-7/8	5-3/4	1.500	.312

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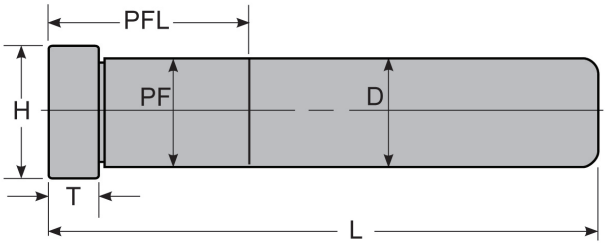
Straight Leader Pins - Guided Ejector

- Provide initial alignment of cavity and core halves
- Press-fit installation
- Tolerances allow for mating with any standard PCS bushings
- Case hardened steel
- Designed for 7/8” Bottom Clamp Plate



Leader Pins provide initial alignment of cavity and core halves. PCS Guided Ejector Leader Pins are manufactured from 4150 steel. These leader pins come standard with a press-fit length of 7/8” and can be used with PCS standard bushings.

SPECIFICATIONS	
PFL Press Fit Length	7/8
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch



CATALOG NO.	NOMINAL DIA.	ACTUAL PIN DIAMETER +.0000/-.0005	PF PRESS FIT DIAMETER +.0005/-.0000	H HEAD DIAMETER +.000/-.010	T HEAD THICKNESS +.000/-.015	L OVERALL LENGTH -.03 / -.06
005-GLS	1/2	0.499	0.501	0.615	3/16	4-1/4
006-GLS						4-3/4
007-GLS						5-1/4
008-GLS						5-3/4
009-GLS						6-1/4
105-GLS	3/4	0.749	0.751	0.990	3/16	4-1/4
106-GLS						4-3/4
107-GLS						5-1/4
108-GLS						5-3/4
109-GLS						6-1/4
110-GLS						6-3/4
205-GLS	7/8	0.874	0.876	1.115	1/4	4-1/4
206-GLS						4-3/4
207-GLS						5-1/4
208-GLS						5-3/4
209-GLS						6-1/4
210-GLS						6-3/4

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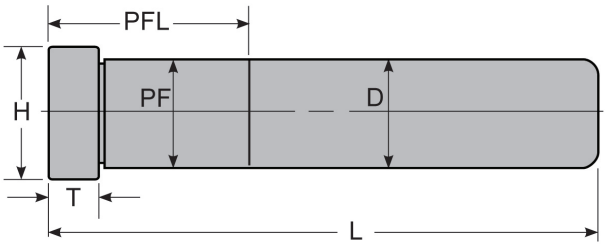
Straight Leader Pins - Guided Ejector

- Provide initial alignment of cavity and core halves
- Press-fit installation
- Tolerances allow for mating with any standard PCS bushings
- Case hardened steel
- Designed for 7/8” Bottom Clamp Plate

Leader Pins provide initial alignment of cavity and core halves. PCS Guided Ejector Leader Pins are manufactured from 4150 steel. These leader pins come standard with a press-fit length of 7/8” and can be used with PCS standard bushings.



SPECIFICATIONS	
PFL Press Fit Length	7/8
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch



CATALOG NO.	NOMINAL DIA.	ACTUAL PIN DIAMETER +.0000/-.0005	PF PRESS FIT DIAMETER +.0005/-.0000	H HEAD DIAMETER +.000/-.010	T HEAD THICKNESS +.000/-.015	L OVERALL LENGTH -.03 / -.06
305-GLS	1	0.999	1.001	1.240	1/4	4-1/4
306-GLS						4-3/4
307-GLS						5-1/4
308-GLS						5-3/4
309-GLS						6-1/4
310-GLS						6-3/4
405-GLS	1-1/4	1.249	1.251	1.490	5/16	4-1/4
406-GLS						4-3/4
407-GLS						5-1/4
408-GLS						5-3/4
409-GLS						6-1/4

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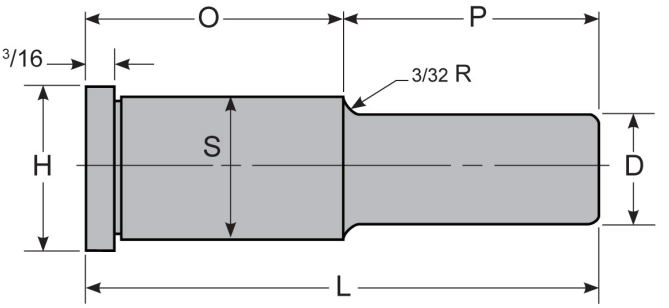
Shoulder Leader Pins - Small Mold Assemblies



- Provide initial alignment of cavity and core halves
- Press-fit installation
- Tolerances allow for mating with any standard PCS bushings
- Case hardened steel

Leader Pins provide initial alignment of cavity and core halves. PCS Shoulder Leader Pins for Small Mold Assemblies are manufactured from 4150 steel. Pins come standard with a diameter of 1/2". These leader pins can be used with PCS standard bushings.

SPECIFICATIONS	
S Press Fit Diameter Tolerance	+.0005 / -.0000
T Head Thickness Tolerance	+.000 / -.005
S Press Fit Diameter	.751
T Head Thickness	3/16
Shoulder Radius	3/32 Max
Hardness	Case Hardened 58-60 Rc
Material Type	4150
Unit of Measure	Inch



CATALOG NO.	D NOMINAL PIN DIAMETER	ACTUAL PIN DIAMETER +.0000/-.0005	O PRESS FIT LENGTH +.0005/-.0000	H HEAD DIAMETER +.000/-.010	P PIN LENGTH	L OVERALL LENGTH -.030/-.060
A-0707	1/2	0.499	7/8	0.853	7/8	1-3/4
A-0713					1-3/8	2-1/4
A-0717					1-7/8	2-3/4
A-0723					2-3/8	3-1/4
A-1307			1-3/8		7/8	2-1/4
A-1313					1-3/8	2-3/4
A-1317					1-7/8	3-1/4
A-1707					7/8	2-3/4
A-1713					1-3/8	3-1/4
A-1717					1-7/8	3-3/4
A-2307					7/8	3-1/4
A-2713					1-3/8	4-1/4

Global Thinswitch®, Liquid Resistant

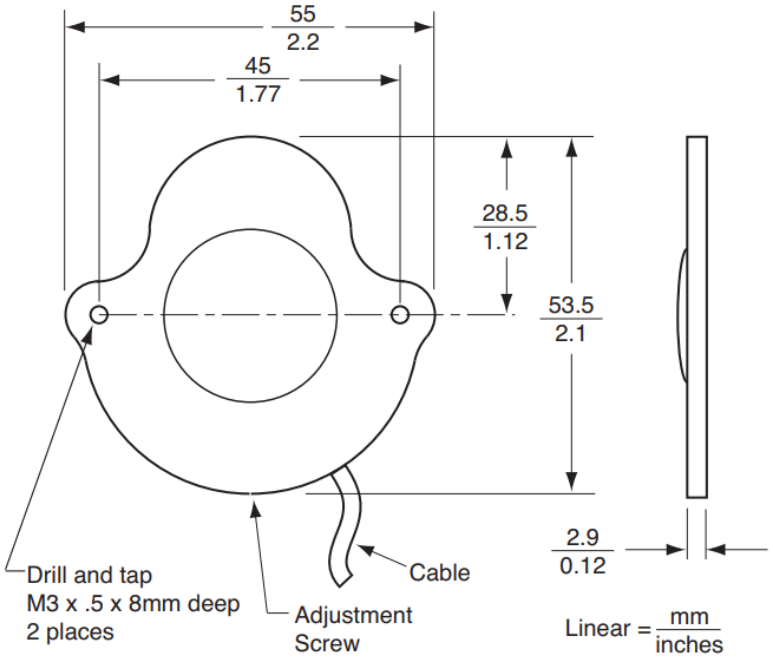
- Over 10 million cycle life
- 3mm, 4mm plate return, 3/16” height
- SPST switching (normally open)
- Contacts with BECu with Hard Gold Plating
- Mounting screws and wire clips included



Smartflow® Global Thinswitch® Limit Switch helps prevent accidental closure in injection molds by verifying ejector plate return in injection molds with 3mm, 4mm or 3/16” rest buttons, and where occasional water or oil spray is present. A polyurethane dome covers the actuator spring, protecting internal gold switch contacts from environmental contamination.

A special mounting bracket aids installation from the edge of the mold. The bracket allows molders to slide the Thinswitch into place without disassembling the mold or using screws to hold the switch in place. Spacers placed under the switch accommodate different rest button heights.

SPECIFICATIONS	
Wire Leads	22ga stranded, 2-conductor, shielded cable, 2m long, ends stripped & tinned
Cycle Life	Over 10 million
Thickness	3/16
Body Material Type	Nylon - Fiberglass Reinforced
Dome Material Type	Polyurethane
Back Cover Material Type	Polyester Film



RATED CURRENT (RESISTIVE) AT 24VDC VS. OPERATING TEMPERATURE		
mAmps	°F	°C
100	85°	29.4°
90	120°	49.0°
80	155°	68.3°
70	175°	79.4°

Note: Smartflow® Limit Switches are designed for use in very low power mold protection control circuits. They are not intended to switch heavy loads in power applications.

CATALOG NO.	TEMPERATURE RATING C°	TEMPERATURE RATING F°
TW-222-LR	80°	176°

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Thinswitch® Limit Switch

- Over 10 million cycle life
- SPDT switching
- Mounting hardware is included



T-222 Thinswitch

Smartflow® Thinswitch® Limit Switch verifies ejector plate return in plastics injection molds. This small switch is thin enough to fit inside the ejector housing. It can also be used for core slides, or places where space is limited. Choose from the original design or the liquid-resistant housing for areas where water or oil spray is present. The Thinswitch® Limit Switch has been tested for reliability over 10 million cycles without failure. Two switches can be used in series for larger molds.

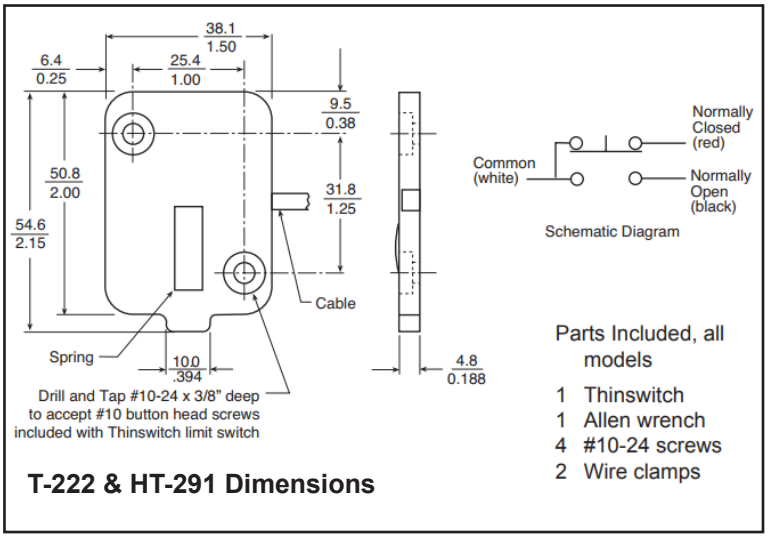
SPECIFICATIONS	
Wire Gauge	22ga stranded
Cycle Life	Over 10 million
Wire Length	6 ft.
Body Material Type	Nylon - Fiberglass Reinforced
Spring Material Type	Stainless Steel
Back Cover Material Type	Polyester Film



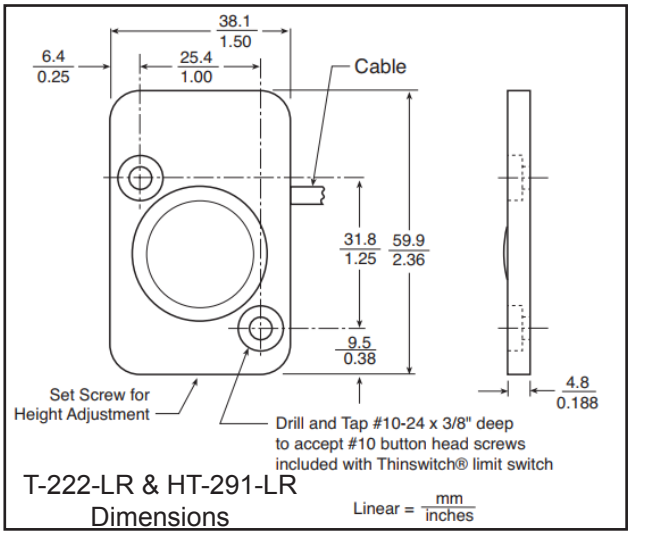
HT-291-LR
Liquid-Resistant Thinswitch

ELECTRICAL	
250VAC	5 Amps Resistive, 4 Amps Inductive
28VDC (sea level)	5 Amps Resistive, 4 Amps Inductive

RATED CURRENT vs. STEEL TEMPERATURE					
T-222-LR, T-222			HT-291-LR, HT-291		
Amps	°F	°C	Amps	°F	°C
5.0	85°	29.4°	5.0	100°	37.7°
4.0	120°	49.0°	4.5	155°	68.3°
3.0	155°	68.3°	4.0	210°	98.8°
2.0	175°	79.4°	3.5	250°	121.1°



T-222 & HT-291 Dimensions



T-222-LR & HT-291-LR Dimensions

CATALOG NO.	DESCRIPTION	TEMPERATURE RATING C°	TEMPERATURE RATING F°	THICKNESS
T-222	Original Thinswitch	79.4°	175°	3/16
HT-291		121°	250°	
T-222-LR	Liquid Resistant Thinswitch	79.4°	175°	
HT-291-LR		121°	250°	

SmartLock® Slide Retainer and Limit Switch

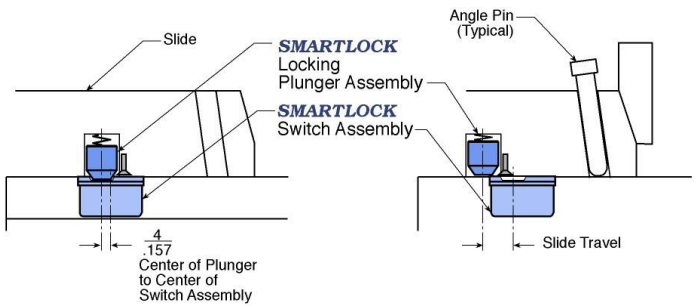
- Over 10 million cycle life
- Standard model rated for 175° F (79.4°C)
- High temperature model rated for 250° (121°C)
- Adjustable holding force: 17 - 27 lbs.
- SPDT switching
- Wire leads have been stripped and tinned
- Fiberglass-reinforced nylon body



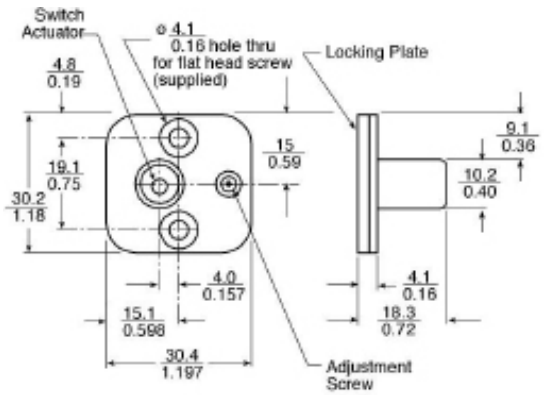


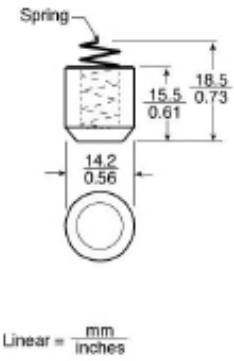
Smartlock® is a slide retainer and limit switch in a single unique package. The plunger and detent mechanically hold a slide in the retracted position while the SPDT switch verifies the slide position to the mold close circuit.

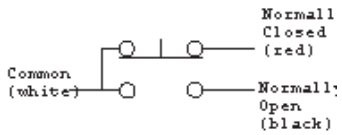
SPECIFICATIONS	
Wire Gauge	22ga
Cycle Life	Over 10 million
Wire Length	6 ft.
Body Material Type	Nylon - Fiberglass Reinforced
Spring Material Type	Stainless Steel
Plunger Material Type	Hardened Steel



RATED CURRENT vs. STEEL TEMPERATURE					
SL-222			SL-291		
Amps	°F	°C	Amps	°F	°C
5.0	85°	29.4°	5.0	100°	37.7°
4.0	120°	49.0°	4.5	155°	68.3°
3.0	155°	68.3°	4.0	210°	98.8°
2.0	175°	79.4°	3.5	250°	121.1°







CATALOG NO.	TEMPERATURE RATING C°	TEMPERATURE RATING F°	THICKNESS
SmartLock® Slide Retainer and Limit Switch			
SL-222	79.4°	175°	.79
SL-291	121°	250°	.79
Smartlock® Slide Retainer and Limit Switch with Captive Plunger			
SL-222-CP	79.4°	175°	.79
Wire Clip for Limit Switch			
CT-222	79.4°	175°	.79

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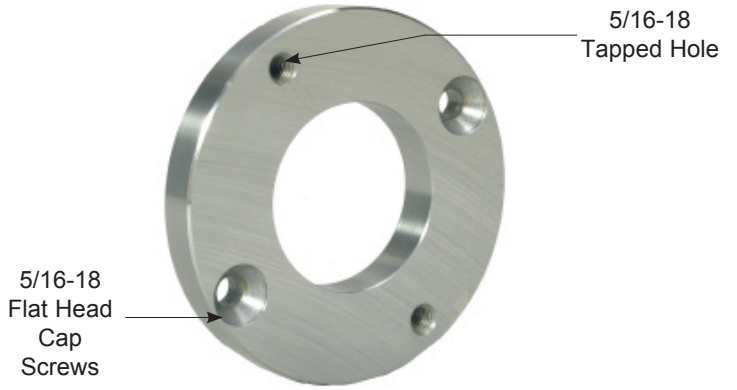
Standard Steel Locating Rings



- Aligns and centers mold into press
- Styles available for use with insulator sheets
- Manufactured from AISI 1018 steel

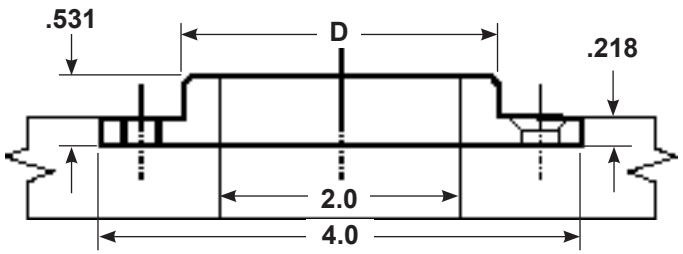
PCS Locating Rings are manufactured from AISI 1018 steel. They are used to align and center the mold into the press. PCS has a wide variety of Locating Rings including styles designed to be used with insulator sheets.

CATALOG NO.	D PILOT DIAMETER	A PILOT LENGTH	DESCRIPTION
4500	2.615	0.531	
4501	3.990	0.531	Standard Series
4501 LN	3.990	0.437	LN Series
4502	4.990	0.531	
4503	3.990	0.218	
4504	3.990	0.531	Clamp Type
4505 LN	5.990	0.437	LN Series
4511	2.990	0.531	
4520	3.990	0.531	Extension Nozzle Type
4521	3.990	0.968	Standard Series - Extra Lead In
4522	3.990	0.968	Extension Nozzle Type - Extra Lead In
4524	3.990	0.968	Clamp Type - Extra Lead In
4535	3.539	0.531	
4536	4.327	0.531	Top Ring (110 mm)
4537	4.327	0.531	Bottom Ring (110 mm)
4541	3.990	1.120	Standard Series - Insulator Sheets
4544	3.990	1.120	Clamp Type - Insulator Sheets

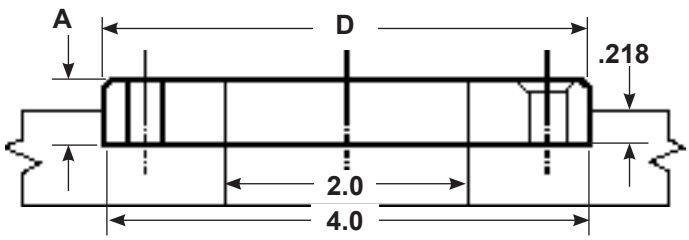


All rings have 3.312 B.C. Except:
4520, 4522 = 4.625 B.C.
4536, 4537 = 3.312 B.C. Screw Hole 3.500 B.C. Tapped Hole

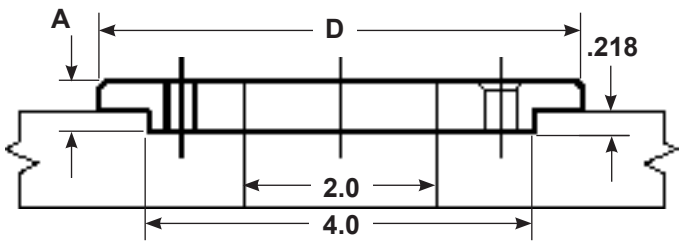
Standard Steel Locating Rings



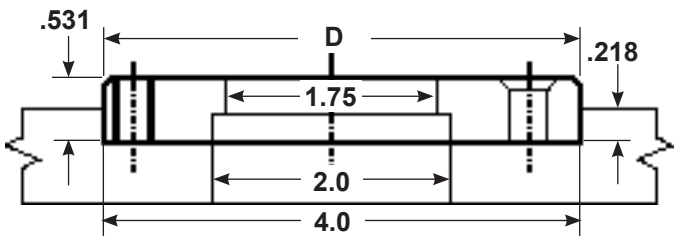
4500
4511



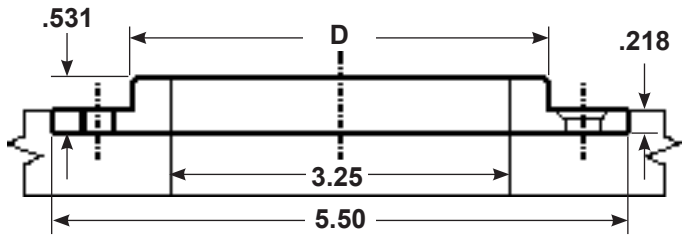
CATALOG NO.	A
4501	.531
4501LN	.437
4503	.218



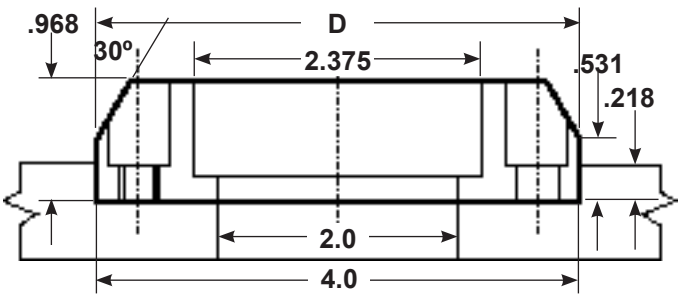
CATALOG NO.	A
4502	.531
4505LN	.437



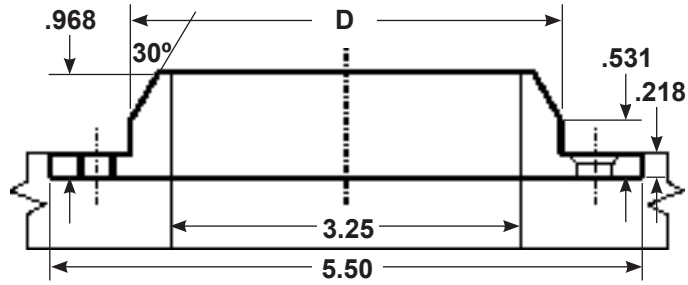
4504
Clamp Type



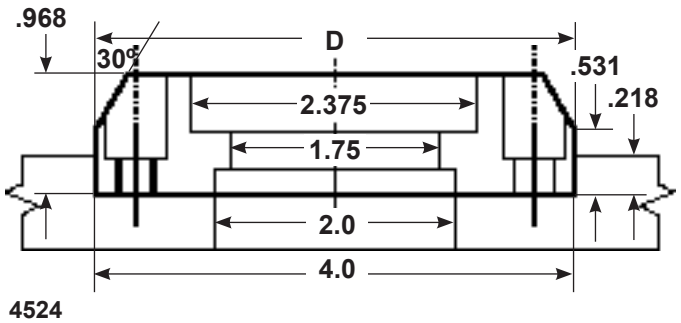
4520
Extension Nozzle Type



4521
Standard Series - Extra Lead In



4522
Extension Nozzle Type - Extra Lead In

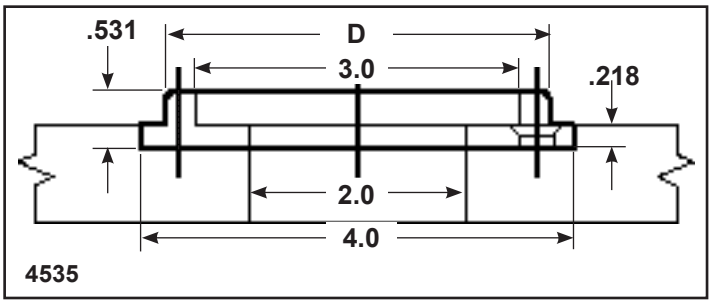


4524
Clamp Type - Extra Lead In

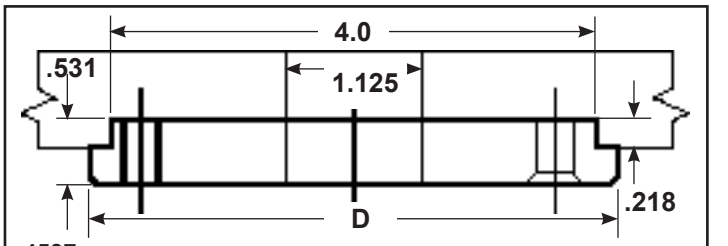
Custom sizes available upon request

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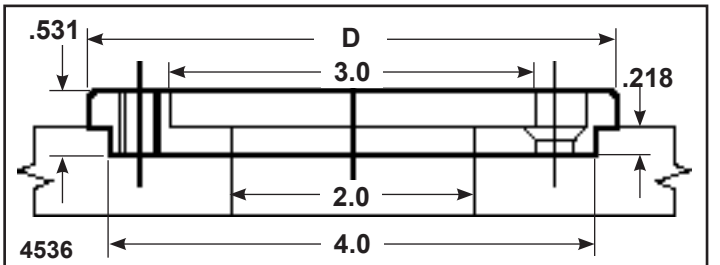
Standard Steel Locating Rings



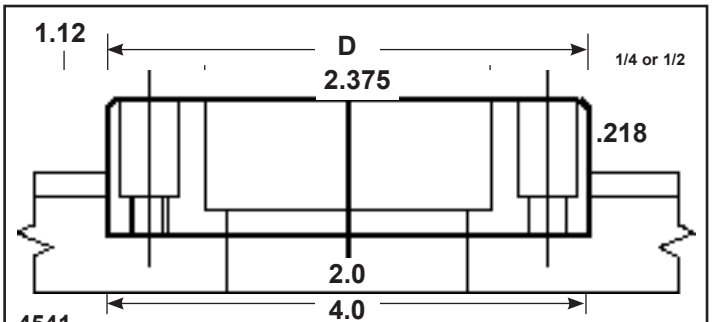
4535



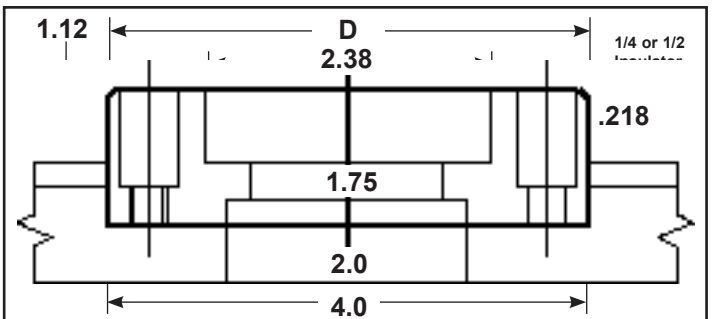
4537
Bottom Ring



4536
Top Ring



4541
Standard Series - Insulator Sheets



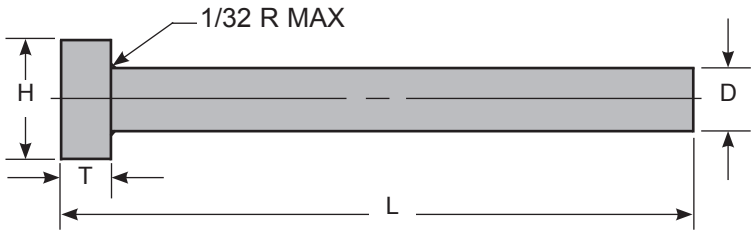
4544
Clamp Type - Insulator Sheets

Return Pins - Nitrided

- Ensures positive return of ejector system
- Manufactured from precision hot work steel
- Nitrided

SPECIFICATIONS	
T Head Thickness Tolerance	+.000 / -.002
T Head Thickness	0.25
Core Hardness	45 - 50 Rc
Surface Hardness	65 - 74 Rc
Material Type	Hot Work Tool Steel
Unit of Measure	Inch



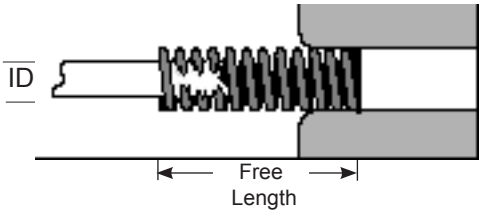


CATALOG NO.	D PIN DIAMETER +.000 / -.001	H HEAD DIAMETER +.000 / .010	L OVERALL LENGTH +.013 / +.008
RP-50	0.500	0.750	3-9/16
RP-51	0.500	0.750	4-1/16
RP-52	0.500	0.750	4-9/16
RP-53	0.500	0.750	5-1/16
RP-54	0.500	0.750	5-9/16
RP-55	0.500	0.750	6-1/16
RP-56	0.500	0.750	6-9/16
RP-60	0.625	0.875	4-1/16
RP-61	0.625	0.875	4-9/16
RP-62	0.625	0.875	5-1/16
RP-63	0.625	0.875	5-9/16
RP-64	0.625	0.875	6-1/16
RP-65	0.625	0.875	6-9/16
RP-66	0.625	0.875	7-1/16
RP-67	0.625	0.875	7-9/16
RP-68	0.625	0.875	8-1/16
RP-70	0.750	1.000	4-15/16
RP-71	0.750	1.000	5-7/16
RP-72	0.750	1.000	5-15/16
RP-73	0.750	1.000	6-7/16
RP-74	0.750	1.000	6-15/16
RP-75	0.750	1.000	7-7/16
RP-76	0.750	1.000	7-15/16
RP-77	0.750	1.000	8-7/16
RP-78	0.750	1.000	8-15/16
RP-79	0.750	1.000	9-7/16

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Medium Duty Springs





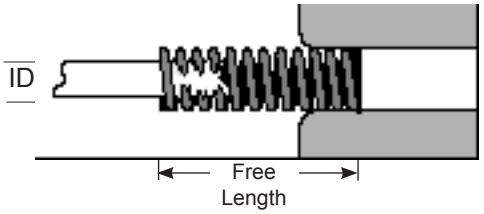
DEFLECTION OF LENGTH	
Maximum	50%
Average Life	40%
Long Life	25%

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
04M10	3/8	3/16	1	6.0
04M12			1-1/4	5.4
04M15			1-1/2	4.0
04M17			1-3/4	3.4
04M20			2	2.8
04M25	WIRE		2-1/2	2.4
04M30	.039 X .070		3	2.1
04M120			12	0.6
05M10	1/2	9/32	1	11.0
05M12			1-1/4	8.2
05M15			1-1/2	6.8
05M17			1-3/4	6.0
05M20			2	5.5
05M25			2-1/2	4.5
05M30			3	3.5
05M35			3-1/2	3.0
05M45			4-1/2	2.5
05M55	WIRE		5-1/2	2.1
05M65	.052 X .093		6-1/2	1.4
05M75			7-1/2	1.2
05M120			12	0.7
06M10	5/8	11/32	1	16.4
06M12			1-1/4	12.8
06M15			1-1/2	10.8
06M17			1-3/4	9.6
06M20			2	8.8
06M25			2-1/2	6.0
06M30			3	5.6
06M35	WIRE		3-1/2	4.8
06M40	.069 X .109		4	4.4
06M120			12	1.6
07M10	3/4	3/8	1	31.2
07M12			1-1/4	25.6
07M15			1-1/2	20.0
07M17			1-3/4	17.6
07M20			2	14.4
07M25			2-1/2	12.0
07M30			3	9.6
07M35			3-1/2	8.0
07M40			4	7.2
07M45			4-1/2	6.4
07M50	WIRE		5	6.0
07M55	.075 X .165		5-1/2	5.5
07M60			6	5.0
07M65			6-1/2	4.5
07M75			7-1/2	3.8
07M120			12	2.4
10M10	1	1/2	1	55.0
10M12			1-1/4	45.0
10M15			1-1/2	35.0
10M17			1-3/4	30.0
10M20			2	26.0
10M25	WIRE		2-1/2	20.0
10M30	.100 X .215		3	16.5

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
10M35	1	1/2	3-1/2	15.0
10M40			4	12.0
10M45			4-1/2	10.4
10M50			5	9.6
10M55			5-1/2	8.8
10M60			6	8.0
10M70	WIRE		7	7.2
10M80	.100 X .215		8	6.0
10M120			12	4.0
12M15	1-1/4	5/8	1-1/2	49.6
12M17			1-3/4	42.4
12M20			2	35.2
12M25			2-1/2	28.8
12M30			3	24.0
12M35			3-1/2	20.0
12M40			4	17.6
12M45			4-1/2	16.0
12M50			5	13.6
12M55	WIRE		5-1/2	12.8
12M60	.115 X .285		6	12.0
12M70			7	10.4
12M80			8	8.8
12M100			10	7.2
12M120			12	6.0
15M20	1-1/2	3/4	2	53.0
15M25			2-1/2	45.0
15M30			3	36.0
15M35			3-1/2	30.0
15M40			4	27.0
15M45			4-1/2	23.0
15M50			5	21.0
15M55			5-1/2	18.5
15M60	WIRE		6	17.0
15M70	.135 X .345		7	14.5
15M80			8	12.8
15M100			10	10.0
15M120			12	8.0
20M25	2	1	2-1/2	100.0
20M30			3	83.0
20M35			3-1/2	64.8
20M40			4	60.0
20M45			4-1/2	53.0
20M50			5	47.0
20M55			5-1/2	39.2
20M60			6	39.0
20M70	WIRE		7	31.2
20M80	.195 X .468		8	28.0
20M100			10	20.8
20M120			12	17.5

Medium Heavy Duty Springs

DEFLECTION OF LENGTH	
Maximum	37%
Average Life	25%
Long Life	20%





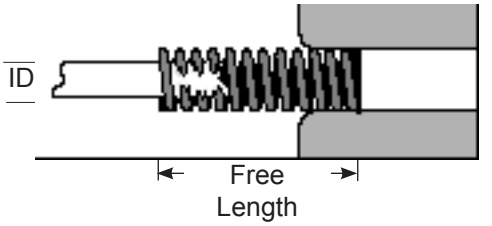
CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
04MH10	3/8	3/16	1	9.0
04MH12			1-1/4	7.3
04MH15			1-1/2	6.7
04MH17			1-3/4	5.8
04MH20			2	5.0
04MH25	WIRE .046 X .0767		2-1/2	4.2
04MH30			3	3.0
04MH120			12	0.9
05MH10	1/2	9/32	1	16.8
05MH12			1-1/4	13.0
05MH15			1-1/2	9.5
05MH17			1-3/4	8.5
05MH20			2	7.5
05MH25			2-1/2	60
05MH30	WIRE .061 X .093		3	5.7
05MH35			3-1/2	4.0
05MH120			12	1.2
06MH10	5/8	11/32	1	30.0
06MH12			1-1/4	21.5
06MH15			1-1/2	19.0
06MH17			1-3/4	16.8
06MH20			2	14.8
06MH25			2-1/2	11.5
06MH30			3	10.0
06MH35	WIRE .081 X .117		3-1/2	8.5
06MH40			4	7.6
06MH120			12	2.7
07MH10	3/4	3/8	1	50.0
07MH12			1-1/4	38.0
07MH15			1-1/2	32.0
07MH17			1-3/4	28.0
07MH20			2	24.8
07MH25			2-1/2	19.2
07MH30			3	14.4
07MH35			3-1/2	12.8
07MH40			4	12.0
07MH45			4-1/2	11.2
07MH50	WIRE .093 X .156		5	9.0
07MH55			5-1/2	8.0
07MH60			6	7.5
07MH120			12	3.6
10MH10	1	1/2	1	76.0
10MH12			1-1/4	62.4
10MH15			1-1/2	49.6
10MH17			1-3/4	44.0
10MH20			2	40.0
10MH25			2-1/2	31.0
10MH30			3	25.0
10MH35			3-1/2	21.6
10MH40			4	18.4
10MH45			4-1/2	17.0
10MH50	WIRE .115 X .218		5	14.4
10MH55			5-1/2	12.8
10MH60			6	12.0

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
10MH70	1	1/2	7	10.0
10MH80	WIRE .115 X .218		8	8.8
10MH120			12	6.2
12MH15	1-1/4	5/8	1-1/2	114.4
12MH17			1-3/4	100.8
12MH20			2	86.4
12MH25			2-1/2	62.4
12MH30			3	51.2
12MH35			3-1/2	44.0
12MH40			4	36.8
12MH45			4-1/2	32.0
12MH50			5	29.0
12MH55	WIRE .156 X .281		5-1/2	26.4
12MH60			6	25.0
12MH70			7	20.0
12MH80			8	18.4
12MH100			10	14.5
12MH120			12	12.4
15MH20	1-1/2	3/4	2	108.0
15MH25			2-1/2	85.6
15MH30			3	62.4
15MH35			3-1/2	52.8
15MH40			4	48.0
15MH45			4-1/2	43.2
15MH50			5	36.8
15MH55			5-1/2	34.4
15MH60	WIRE .187 X .312		6	30.4
15MH70			7	26.4
15MH80			8	22.0
15MH100			10	17.6
15MH120			12	14.4
20MH25	2	1	2-1/2	118.4
20MH30			3	96.0
20MH35			3-1/2	80.0
20MH40			4	66.4
20MH45			4-1/2	60.0
20MH50			5	56.0
20MH55			5-1/2	50.4
20MH60	WIRE .225 X .437		6	47.2
20MH70			7	40.0
20MH80			8	35.2
20MH100			10	26.0
20MH120			12	22.4

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Heavy Duty Springs





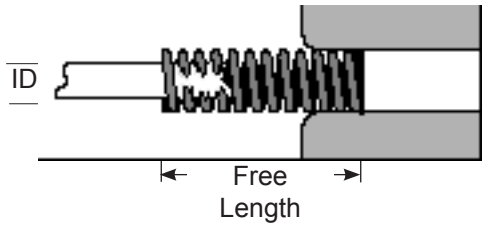
DEFLECTION OF LENGTH	
Maximum	30%
Average Life	20%
Long Life	15%

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
04H10	3/8	3/16	1	11.0
04H12			1-1/4	9.8
04H15			1-1/2	8.0
04H17			1-3/4	8.4
04H20			2	7.2
04H25	WIRE		2-1/2	5.5
04H30	.054 X .072		3	4.2
04H120			12	1.2
05H10	1/2	9/32	1	23.6
05H12			1-1/4	18.6
05H15			1-1/2	15.5
05H17			1-3/4	13.8
05H20			2	11.0
05H25			2-1/2	8.4
05H30	WIRE		3	7.4
05H35	.070 X .093		3-1/2	6.0
05H120			12	1.6
06H10	5/8	11/32	1	42.4
06H12			1-1/4	29.6
06H15			1-1/2	27.2
06H17			1-3/4	24.0
06H20			2	20.8
06H25			2-1/2	17.0
06H30			3	14.4
06H35	WIRE		3-1/2	12.2
06H40	.093 X .125		4	10.8
06H120			12	3.0
07H10	3/4	3/8	1	108.0
07H12			1-1/4	88.0
07H15			1-1/2	65.6
07H17			1-3/4	60.0
07H20			2	49.6
07H25			2-1/2	40.0
07H30			3	34.0
07H35			3-1/2	28.0
07H40			4	25.0
07H45	WIRE		4-1/2	22.0
07H50	.125 X .165		5	19.5
07H55			5-1/2	17.0
07H60			6	16.0
07H120			12	8.0
10H10	1	1/2	1	208.0
10H12			1-1/4	171.2
10H15			1-1/2	118.4
10H17			1-3/4	104.0
10H20			2	90.0
10H25			2-1/2	68.0
10H30			3	54.4
10H35			3-1/2	45.6
10H40	WIRE		4	40.0
10H45	.158 X .225		4-1/2	35.2
10H50			5	31.2
10H55			5-1/2	28.8

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 IN. DEFLECTION (LBS.)
10H60	1	1/2	6	25.6
10H70	WIRE		7	22.4
10H120	.159 X .225		12	12.0
12H15	1-1/4	5/8	1-1/2	212.0
12H17			1-3/4	181.6
12H20			2	149.6
12H25			2-1/2	117.6
12H30			3	95.2
12H35			3-1/2	75.2
12H40			4	66.4
12H45			4-1/2	58.4
12H50			5	53.0
12H55	WIRE		5-1/2	47.2
12H60	.200 X .295		6	42.4
12H70			7	36.8
12H80			8	32.8
12H100			10	25.6
12H120			12	20.8
15H20	1-1/2	3/4	2	190.4
15H25			2-1/2	155.0
15H30			3	130.0
15H35			3-1/2	106.4
15H40			4	91.2
15H45			4-1/2	78.4
15H50			5	71.2
15H55			5-1/2	64.0
15H60	WIRE		6	58.4
15H70	.225 X .350		7	49.6
15H80			8	43.2
15H100			10	34.4
15H120			12	28.8
20H25	2	1	2-1/2	260.0
20H30			3	200.0
20H35			3-1/2	170.0
20H40			4	150.0
20H45			4-1/2	120.0
20H50			5	110.0
20H55			5-1/2	100.0
20H60			6	94.0
20H70	WIRE		7	82.0
20H80	.280 X .470		8	73.0
20H100			10	55.0
20H120			12	42.0

Extra Heavy Duty Springs

DEFLECTION OF LENGTH	
Maximum	25%
Average Life	20%
Long Life	15%





CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 N. DEFLECTION (LBS.)
04X10	3/8	3/16	1	22.0
04X12			1-1/4	16
04X15			1-1/2	12.5
04X17			1-3/4	11.5
04X20			2	9.0
04X25	WIRE		2-1/2	7.0
04X30	.059 X .080		3	6.5
04X120			12	1.5
05X10	1/2	9/32	1	32.0
05X12			1-1/4	24
05X15			1-1/2	20
05X17			1-3/4	17
05X20			2	14
05X25			2-1/2	11.5
05X30	WIRE		3	9
05X35	.084 X .097		3-1/2	8
05X120			12	2.5
06X10	5/8	11/32	1	63.0
06X12			1-1/4	47.0
06X15			1-1/2	38.0
06X17			1-3/4	32.0
06X20			2	29.0
06X25			2-1/2	22.0
06X30	WIRE		3	19.0
06X35	.110 X .126		3-1/2	16.0
06X40			4	13.5
06X120			12	4.5
07X10	3/4	3/8	1	140.0
07X12			1-1/4	110.0
07X15			1-1/2	89.0
07X17			1-3/4	75.0
07X20			2	68.0
07X25			2-1/2	50.0
07X30			3	40.5
07X35			3-1/2	34.5
07X40	WIRE		4	30.0
07X45	.135 X .165		4-1/2	26.5
07X50			5	23.5
07X55			5-1/2	21.5
07X60			6	19.5
07X120			12	9.5
10X15	1	1/2	1-1/2	160.0
10X20			2	116.0
10X25			2-1/2	89.6
10X30			3	73.6
10X35			3-1/2	62.4
10X40			4	55.2
10X45	WIRE		4-1/2	48.8
10X50	.188 X .225		5	43.2
10X60			6	36.0
10X120			12	17.6

CATALOG NO.	O.D.	I.D.	FREE LENGTH	LOAD AT 1/10 N. DEFLECTION (LBS.)
12X20	1-1/4	5/8	2	192.0
12X25			2-1/2	144.0
12X30			3	118.4
12X35			3-1/2	100.8
12X40			4	84.0
12X45			4-1/2	78.4
12X50			5	68.0
12X60	WIRE		6	56.0
12X80	.225 X .295		8	41.6
12X100			10	33.6
12X120			12	26.4
15X20	1-1/2	3/4	2	376.0
15X25			2-1/2	294.4
15X30			3	231.2
15X35			3-1/2	196.0
15X40			4	171.2
15X45			4-1/2	148.0
15X50			5	136.0
15X60	WIRE		6	110.4
15X80	.300 X .300		8	80.8
15X10			10	67.2
15X12			12	54.4
20X25	2	1	2-1/2	381.6
20X30			3	312.0
20X35			3-1/2	254.4
20X40			4	220.
20X45			4-1/2	188.8
20X50			5	172.8
20X60	WIRE		6	141.6
20X80	.365 X .460		8	100
20X100			10	84.0
20X120			12	71.0

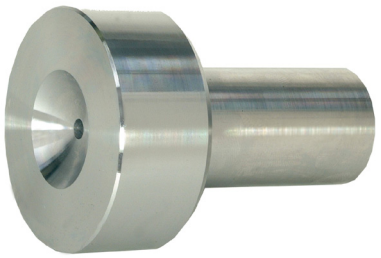
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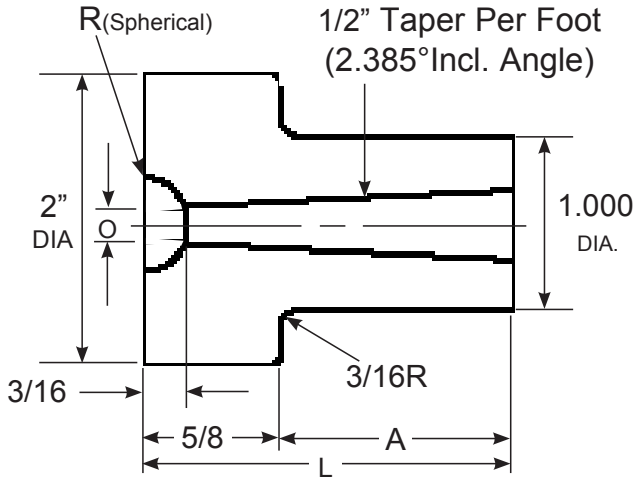
Sprue Bushing A Series - 1/2” Radius

- Manufactured from Premium Hotwork Steel
- Hardened and polished
- Allows for transfer of plastic from nozzle to runner system

Sprue bushings accept the machine nozzle and allow for plastic to enter the mold. PCS Sprue Bushings are manufactured from premium hotwork steel and are hardened and polished.



SPECIFICATIONS	
Head Diameter	2.000
Body Diameter	1.000
Body to Shoulder Radius	3/16
Head Thickness	.625
Radius	1/2
O Orifice Tolerance	+.010 / -.000
Surface Hardness	42 - 46 Rc
Material Type	Hot Work Tool Steel
Unit of Measure	Inch

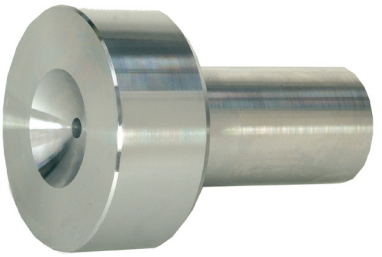


CATALOG NO.	A BODY LENGTH	L OVERALL LENGTH	O ORIFICE
A-600-51	1.190	1.815	5/32
A-600-91	1.190	1.815	9/32
A-602-71	2.190	2.312	7/32
A-602-91	2.190	2.312	9/32
A-605-51	2.190	2.312	5/32

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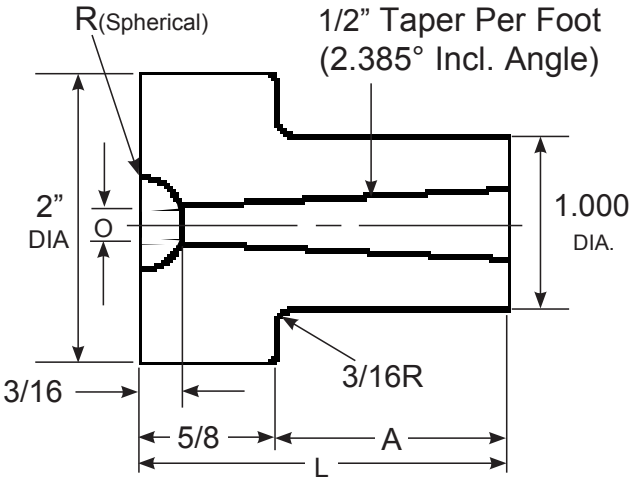
Sprue Bushing A Series - 3/4” Radius

- Manufactured from Premium Hotwork Steel
- Hardened and polished
- Allows for transfer of plastic from nozzle to runner system



Sprue bushings accept the machine nozzle and allow for plastic to enter the mold. PCS Sprue Bushings are manufactured from premium hotwork steel and are hardened and polished.

SPECIFICATIONS	
Head Diameter	2.000
Body Diameter	1.000
Body to Shoulder Radius	3/16
Head Thickness	.625
Radius	3/4
O Orifice Tolerance	+.010 / -.000
Surface Hardness	42 - 46 Rc
Material Type	Hot Work Tool Steel
Unit of Measure	Inch

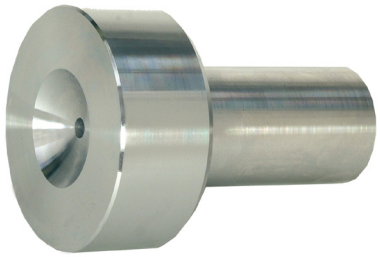


CATALOG NO.	A BODY LENGTH	L OVERALL LENGTH	O ORIFICE
A-600-73	1.190	1.815	7/32
A-601-53	1.190	1.815	5/32
A-602-53	2.190	2.312	5/32
A-602-73	2.190	2.312	7/32
A-604-53	2.190	2.312	5/32

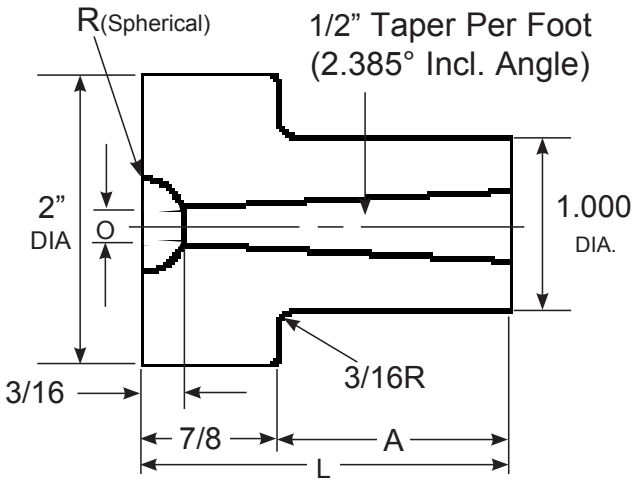
Sprue Bushing B Series - 1/2” & 3/4” Radius

- Manufactured from Premium Hotwork Steel
- Hardened and polished
- Allows for transfer of plastic from nozzle to runner system

Sprue bushings accept the machine nozzle and allow for plastic to enter the mold. PCS Sprue Bushings are manufactured from premium hotwork steel and are hardened and polished.



SPECIFICATIONS	
Head Diameter	2.000
Body Diameter	1.000
Body to Shoulder Radius	3/16
Head Thickness	.875
O Orifice Tolerance	+.010 / -.000
Surface Hardness	46 - 48 RC
Material Type	Hot Work Tool Steel
Unit of Measure	Inch

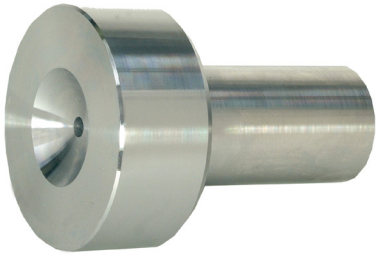


A	L LENGTH	O ORIFICE								
		5/32”		7/32”		9/32”		11/32”		1/2”
		RADIUS								
		1/2”	3/4”	1/2”	3/4”	1/2”	3/4”	1/2”	3/4”	3/4”
29/32	1-25/32	B-600-51	B-600-53	B-600-71	B-600-73	B-600-91	B-600-93	B-600-112	B-600-134	
1-13/32	2-9/32	B-601-51	B-601-53	B-601-71	B-601-73	B-601-91	B-601-93	B-601-112		
1-29/32	2-25/32	B-602-51	B-602-53	B-602-71	B-602-73	B-602-91	B-602-93	B-602-112	B-602-134	
2-13/32	3-9/32	B-603-51	B-603-53	B-603-71	B-603-73	B-603-91	B-603-93	B-603-112	B-603-134	
2-29/32	3-25/32	B-604-51	B-604-53	B-604-71	B-604-73	B-604-91	B-604-93	B-604-112	B-604-134	
3-13/32	4-9/32	B-605-51	B-605-53	B-605-71	B-605-73	B-605-91	B-605-93	B-605-112	B-605-134	
3-29/32	4-25/32	B-606-51	B-606-53	B-606-71	B-606-73	B-606-91	B-606-93	B-606-112	B-606-134	
4-13/32	5-9/32	B-607-51	B-607-53	B-607-71	B-607-73	B-607-91	B-607-93	B-607-112	B-607-134	
4-29/32	5-25/32	B-608-51	B-608-53	B-608-71	B-608-73	B-608-91	B-608-93	B-608-112	B-608-134	
5-29/32	6-25/32			B-609-71	B-609-73	B-609-91	B-609-93	B-609-112	B-609-134	
6-29/32	7-25/32	B-610-51	B-610-53	B-610-71	B-610-73	B-610-91	B-610-93	B-610-112	B-610-134	B-610-13

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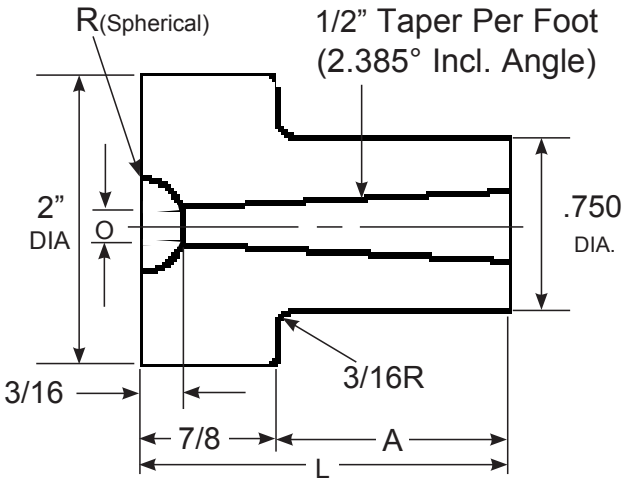
Sprue Bushing U Series - 1/2” & 3/4” Radius

- Manufactured from Premium Hotwork Steel
- Hardened and polished
- Allows for transfer of plastic from nozzle to runner system



Sprue bushings accept the machine nozzle and allow for plastic to enter the mold. PCS Sprue Bushings are manufactured from premium hotwork steel and are hardened and polished.

SPECIFICATIONS	
Head Diameter	2.000
Body Diameter	0.750
Body to Shoulder Radius	1/8
Head Thickness	.875
O Orifice Tolerance	+.010 / -.000
Surface Hardness	42 - 46 Rc
Material Type	Hot Work Tool Steel
Unit of Measure	Inch



A	L LENGTH	O ORIFICE					
		5/32”		7/32”		9/32”	
		RADIUS					
		1/2”	3/4”	1/2”	3/4”	1/2”	3/4”
29/32	1-25/32	U-600-51	U-600-53	U-600-71	U-600-73	U-600-91	U-600-93
1-13/32	2-9/32	U-601-51	U-601-53	U-601-71	U-601-73	U-601-91	U-601-93
1-29/32	2-25/32	U-602-51	U-602-53	U-602-71	U-602-73	U-602-91	U-602-93
2-13/32	3-9/32	U-603-51	U-603-53	U-603-71	U-603-73	U-603-91	U-603-93
2-29/32	3-25/32	U-604-51	U-604-53	U-604-71	U-604-73	U-604-91	U-604-93
3-13/32	4-9/32	U-605-51	U-605-53	U-605-71	U-605-73	U-605-91	U-605-93
3-29/32	4-25/32	U-606-51	U-606-53	U-606-71	U-606-73	U-606-91	U-606-93

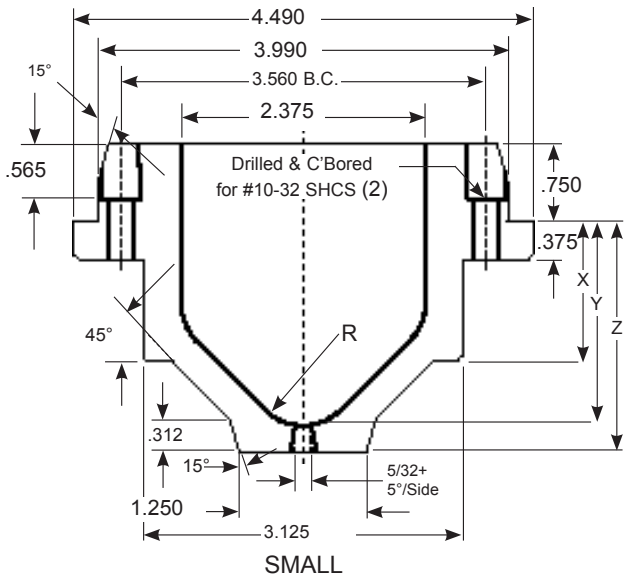
Sprue Bushing Extensions

- Can be used with 1-3/8” and 1-7/8” top clamp plate
- Tapered lead allows for easier installation in the molding machine platen
- Available in 1/2” and 3/4” radius with a 5/32” diameter hole (5º taper per side)
- Extra grind stock provided for fitting at assembly
- Used in three plate molds

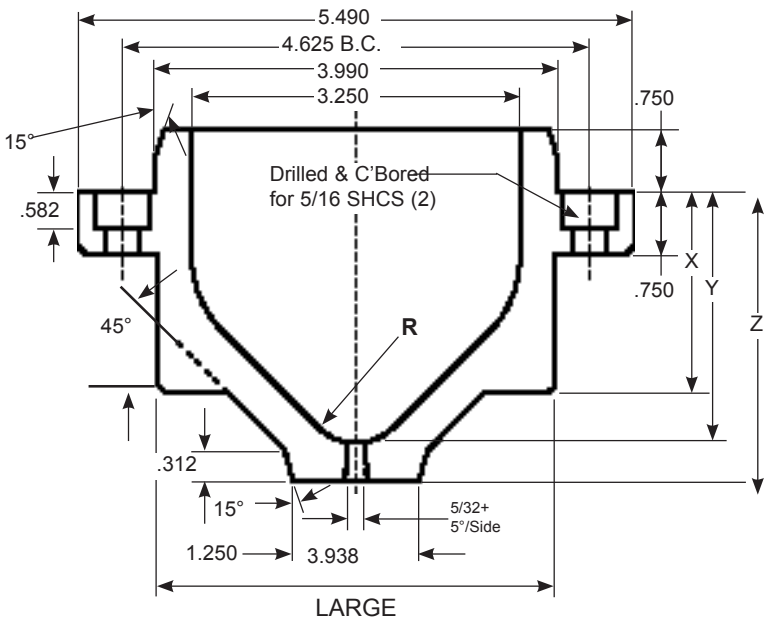
Sprue bushings accept the machine nozzle and allow for plastic to enter the mold. PCS Sprue Bushings are manufactured from premium hotwork steel and are hardened and polished. Sprue Bushing Extensions are available for use with T-Series and stripper plate molds.



SPECIFICATIONS	
Surface Hardness	28 - 32 Rc
Material Type	4150
Unit of Measure	Inch



SMALL



LARGE

CATALOG NO.	RADIUS	X EXTENSION LENGTH +.002 / -.000	Y LENGTH TO SPHERICAL SEAT +.002 / -.002	Z LENGTH TO TIP SURFACE +.005 / -.000
SBES-30-5	1/2	1.375	2.000	2.265
SBES-35-5		1.875	2.500	2.765
SBEL-35-5		1.875	2.375	2.765
SBEL-40-5		2.375	2.875	3.265
SBES-30-7	3/4	1.375	2.000	2.265
SBES-35-7		1.875	2.500	2.765
SBEL-35-7		1.875	2.312	2.765
SBEL-40-7		2.375	2.812	3.265

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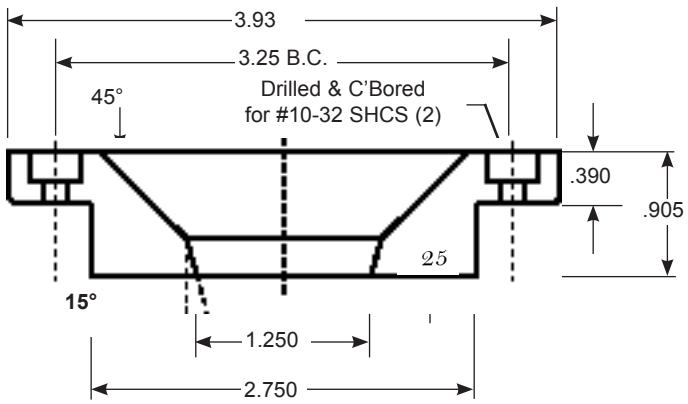
Stripper Plate Bushings



- Used with sprue bushing extension
- Accomodates both the large and small sprue bushing extensions
- Pre-hardened steel 300 Bhn
- Used with stripper plate mold bases
- SHCS Included

Stripper Plate Bushings are manufactured from pre hardened steel. These bushings are used with stripper plate mold bases and can accommodate both the large and small sprue bushing extensions.

SPECIFICATIONS	
I.D. Tolerance	+.001 / -.000
O.D. Tolerance	+.000 / -.002
Surface Hardness	300 Bhn
Material type	4150
Unit of Measure	Inch



CATALOG NO.	I.D	O.D.
SPB-40	1.25	3.93

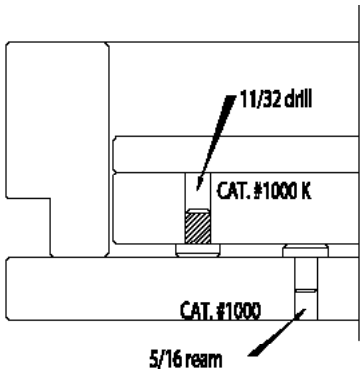
Stop Pins

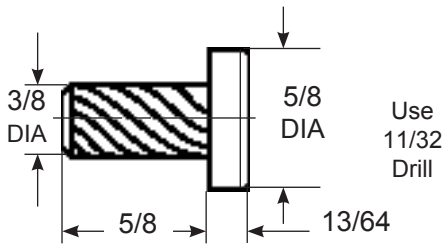
- Knurled and standard pins available
- Prevents ejector plates from crashing into the mold
- Black-Oxide surface finish

Stop Pins are made from hardened steel and are used to stop the ejector system from crashing into the backside of the mold. Stop Pins are available with a standard or spiral shank.



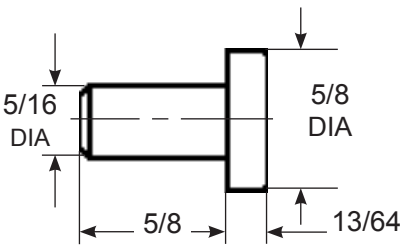
SPECIFICATIONS	
Hardness	38 - 44 Rc
Head Diameter	5/8
Material Type	1038
Pin Length	5/8
Head Thickness	13/64
Unit of Measure	Inch





5/16 diameter is held within .001 for press fit

SPIRAL SHANK



STANDARD

CATALOG NO.	PIN DIAMETER	SHANK TYPE
1000	5/16	Standard
1000-K	3/8	Spiral

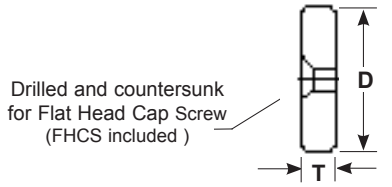
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Stop Disc



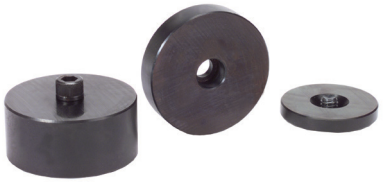
- Hardened steel material
- FHCS included
- Prevents ejector plates from crashing into the mold
- Black-Oxide surface finish

SPECIFICATIONS	
Thickness Tolerance	+.0005 / -.0005
Hardness	58 - 62 Rc
Material Type	8620
Unit of Measure	Inch



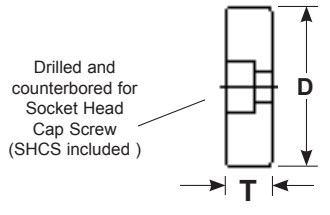
CATALOG NO.	D DIAMETER	T THICKNESS	FLAT HEAD CAP SCREW SIZE
SD-05	11/16	3/16	#10-24
SD-07	1	3/16	#10-24
SD-10	1-3/16	3/16	#10-24
SD-15	1-11/16	1/4	1/4-20

Stop Spacers



- Hardened steel material 58 - 62 Rc
- Drilled and counterbored for SHCS
- SHCS included
- Prevents ejector plates from crashing into the mold
- Black-Oxide surface finish

SPECIFICATIONS	
Thickness Tolerance	+0 / - .002
Hardness	58 - 62 Rc
Material Type	8620
Socket Head Cap Screw Size	1/4-20
Unit of Measure	Inch



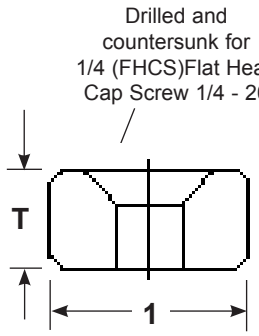
CATALOG NO.	D DIAMETER	T THICKNESS
SS-05	1	1/2
SS-15	1-3/16	1/2
SS-20	1-11/16	1/2
SS-25	1-11/16	1

Stop Button

- Hardened steel material
- .015 grindstock from nominal dimension
- Drilled and countersunk for FHCS 1/4 - 20
- Prevents ejector plates from crashing into the mold
- Black-Oxide surface finish

SPECIFICATIONS	
Thickness Tolerance	+.005 / -.000
Diameter	1.00
Hardness	58-62 Rc
Material Type	8620
Unit of Measure	Inch





- Hardened
- .010 - .020 grindstock

CATALOG NO.	T THICKNESS
SB-03	3/16
SB-04	1/4
SB-06	3/8
SB-08	1/2
SB-10	5/8
SB-12	3/4
SB-16	1

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Support Pillars

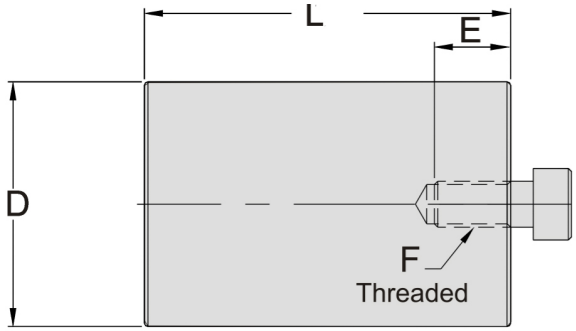
- Manufactured from SAE 1040 steel
- Lengths are flat & parallel within .0002
- Protect mold base plates from bowing
- Helps to reduce flash



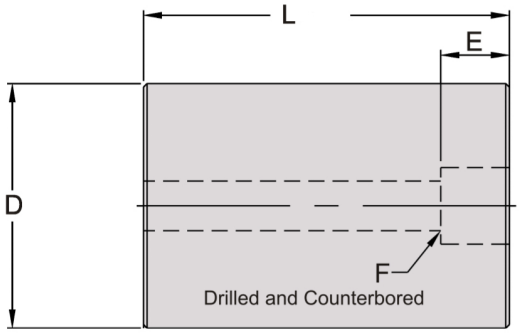
SPECIFICATIONS TAPPED			
D +.000 -.015	E +.01 -.00	F	
1	5/8	3/8-16	3/8-16 x 1 SHCS included FREE
1-1/4			
1-1/2			
1-3/4			
2			
2-1/2			
3	1-1/4	5/8-11	not included
4			

SPECIFICATIONS DRILLED & COUNTERBORED		
D +.000 -.015	E +.01 -.00	F
1-1/4	9/16	3/8
1-1/2		
2		
3	3/4	5/8

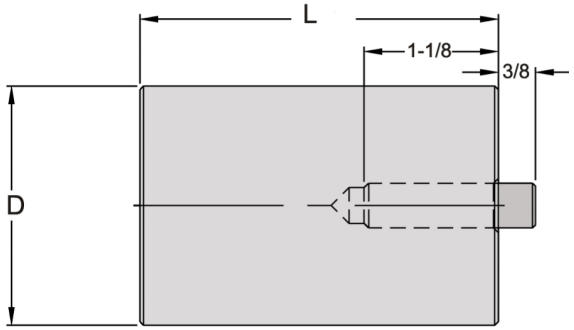
TAPPED



DRILLED & COUNTERBORED



DOWELED



3/8 x 1-1/2 Dowel Pin Included

D DIA +.000 / -.015	L LENGTH +.002 / +.001	TAPPED HOLE	DRILLED C'BORED	DOWELED
1	2.500	1025		
	3.000	1030		
	3.500	1035		
	4.000	1040		
	4.500	1045		
1-1/4	2.500	1225	DC-1225	D-1225
	3.000	1230	DC-1230	D-1230
	3.500	1235	DC-1235	D-1235
	4.000	1240	DC-1240	
	4.500	1245		
	5.000	1250	DC-1250	
	6.000	1260	DC-1260	
1-1/2	2.500	1525		D-1525
	3.000	1530		D-1530
	3.500	1535	DC-1535	D-1535
	4.000	1540	DC-1540	D-1540
	4.500	1545		D-1545
	5.000	1550	DC-1550	D-1550
	6.000	1560	DC-1560	
1-3/4	2.500	1725		
	3.000	1730		
	3.500	1735		
	4.000	1740		
	4.500	1745		
	5.000	1750		
	6.000	1760		
2	2.500	2025		
	3.000	2030		D-2030
	3.500	2035		D-2035
	4.000	2040		D-2040
	4.500	2045		D-2045
	5.000	2050	DC-2050	
	6.000	2060	DC-2060	D-2060
2-1/2	3.000	2530		
	3.500	2535		
	4.000	2540		
	4.500	2545		
	5.000	2550		
	6.000	2560		
3	4.000	3040		
	4.500	3045		
	5.000	3050	DC-3050	
	6.000	3060	DC-3060	
	8.000	3080	DC-3080	
4	5.000	4050		
	6.000	4060		
	8.000	4080		

Custom sizes available upon request

PCS COMPANY
Turn To The Industry Experts

Threaded Locating Pin Accessory

- Manufactured from SAE 1040 steel
- Allows a tapped support pillar to be doweled in place
- Doweled section, 3/8” in length



The Threaded Locating Pin Accessory contains 3/8-16 external threads on one end and a .3750” diameter doweled section on the other end. It can be installed into a 3/8-16 tapped hole on the end of a support pillar to allow for doweled installation.

SPECIFICATIONS	
Material Type	SAE 1040
D Diameter	3/8
L Overall Length	1
Unit of Measure	Inch

CATALOG NO.	DIAMETER	OVERALL LENGTH
TLP-38	3/8	1