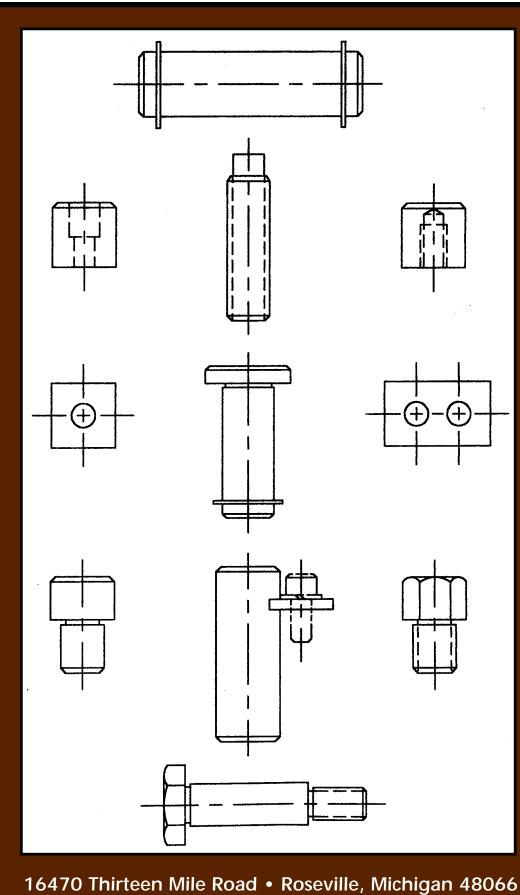
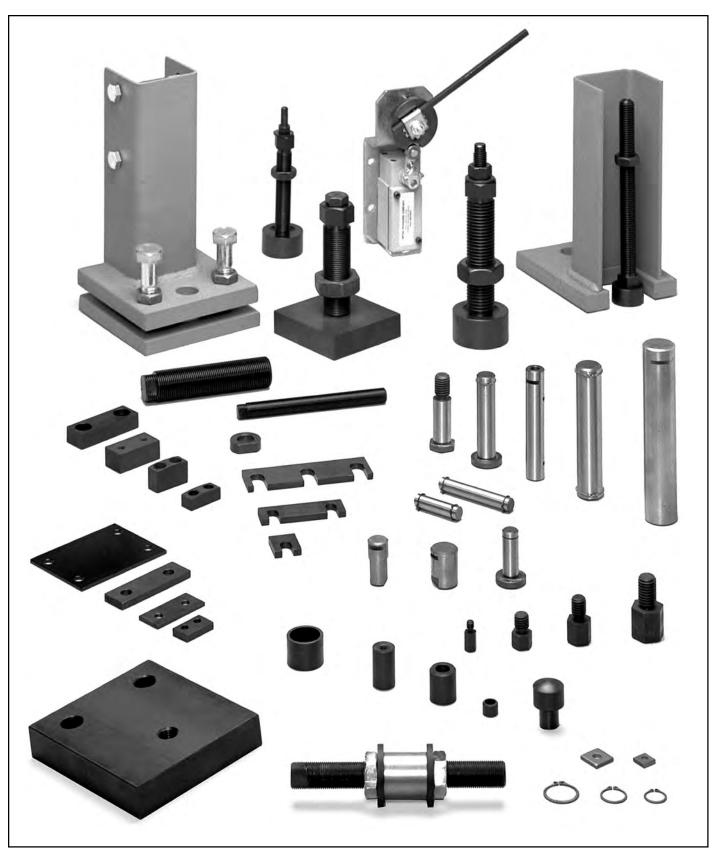
Standard COMPANY **Detail**



Phone: (586) 776-5910 • Fax: (586) 776-5977

Serving Industry With Quality Components



SECTION A - GENERAL

GENERAL INFORMATION

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QUOTE REQUEST & PRODUCT SUGGESTION SHEET

General Information

<u>QUALITY</u>

Detail Standard Company manufactures and supplies only quality products. We guarantee that all items are manufactured to the specifications in our catalog and on our website. To insure this quality, we perform dimensional inspections of our products prior to shipping them to your plant. Each order is cross-checked to make sure that you receive all and the right parts, you ordered.

TECHNICAL/APPLICATION ASSISTANCE

Our *Sales Engineers* have a strong background in *design engineering and build of automation*, *machine assembly systems, special machines and more*. Our engineers are ready to assist and answer your technical questions and provide application assistance by calling us at *586-776-5910*

DESIGN SERVICE

With our strong background in *Design Engineering* and building of *Automation*, *Machine assembly systems*, *Special machines* and more. Our Engineers are ready to assist in design services through our sister company *Paradigm Design Service*.

PRODUCT CHANGES & ADDITIONS

We are continually adding to and improving our product line. We manufacture products that are interchangeable with our competition and at the same time provide superior quality and on time delivery. We do not change the functionality, physical dimensions or physical properties of any of our products after they are published for sale. A *Detail Standard* product from our first catalog can be re-ordered today with the same part number.

STOCK MATERIALS

1018, 1045, 4150, 11L17, 12L14, Aluminum, Bronze, Stainless Steel, Tool Steels & T. G. & P. (Special material in section "F" can be made from Pre-Ground Stock, just add "G" after part number) Special sizes and tolerances are available upon request.

MACHINING SERVICE CAPABILITIES

Our Engineers and *machine shop* are ready to provide *our customers* with the best service and quality possible. From single piece prototype or special need repair parts to short run production, to any machining needs from start to finish. Start with an idea, blueprint or sample and let us take it from there. We would be happy to discuss any ways in which we can meet your machining needs. Choose *Detail Standard Company* to get the job done right and on time. *CNC Turning /up to 14" diameter CNC Milling / Vertical & Horizontal 3 & 5 Axis CNC Screw Machining High Precision Parts Quality Metal Fabrication, Assembly and Prototype using CAD Technology to produce, complicated shapes on most ferrous and non ferrous materials. Assembly service of Fixtures, Pallets, Sub-Assemblies and more*!

PRICING & ORDER QUANTITY

Our prices are quantity controlled for price advantage. There are no minimum quantities.

TERMS OF PAYMENT

We may require new customers to pay on *C.O.D. or Cash pick up basis* until credit checks have been completed. Credit accounts of net. 30 days may be established after completing one of our standard credit application forms.

DELIVERIES

Please be advised, parts are made to order and allow two (2) weeks for shipment, if you ordered a standard part in the past we probably have some extras on hand for next day shipment. *On rush orders*, or *critical downtime situations* we will do our best to deliver your order. We can hand deliver your order if you are reasonably close to our plant or we can make special arrangements to suit your needs.

SPECIAL ITEMS

For special variations of any products, including metric sizes, please contact one of our *sales engineers*. If you have an item you would like us to quote, please fax or e-mail a drawing or sketch and we will reply with a price and delivery typically within two (2) business days.

BLANKET ORDERS

We can establish blanket orders for parts (held for your inventory) that you need delivered at intervals over a one year period. This gives you the cost advantage of ordering larger quantities of parts to receive a better price break. We can schedule shipments to meet your production needs. Just contact our office to discuss any blanket order terms for your particular needs.

CANCELLED ORDERS

We will accept the cancellation of any order within two (2) business days.

HOLDING ITEMS

We will put individual orders on '*hold*', at the customer's request, for a period of *thirty days past the promised delivery date.* At the end of this thirty-day period, orders will be removed from the '*hold*' status, shipped and billed to the customer. If you need to put an order on '*hold*' for a longer period than thirty days we will be glad to discuss terms that will work for both of us.

RETURN POLICY

All sales are final with the exception of part damaged by freight carrier's (IE.UPS, FEDEX, etc.)

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SECTION G - AUTOMATION COMPONENTS FLOATING ROD COUPLER (ASS'Y & DETAILS) FLOATING ROD COUPLER CLEVIS (ASS'Y & DETAILS) SWITCH DOG PROXIMITY BRACKETS JACK SCREW/LEVELING SCREW LEVELING SCREW PADS HOLD DOWN/LEVELING SCREW ASS'Y FOOT ASSEMBLY LIMIT SWITCH PLATE	FRC BPL, CAF, CAM, CCA, CL, EX, FMC, HSN MBPL, MCAF, MCAM, MCCA, MHSN CAN SD, SR, MSD, MSR BPSB, CMPSB, MCMPSB, SPSB JS, JS-R, LS-F, LS-R LSP-T, LSP-H, LSP-CH HL, HLF, LSA, LSB, MHL FA, FB SW	G-1 G-2 TO G-15 G-16 TO G-19 G-20 TO G-22 G-23 TO G-30 G-31, G-32 G-17 G-34 TO G-38 G-39, G-40 G-41

		IN	IDEX		
PREFIX	SEC-SHT	PREFIX	SEC-SHT	PREFIX	SEC-SHT
2K ARH-AD ARH-BD ARH-BD ARH-BS AS B BPSB CAF CAM CBG CAF CAM CBG CAF CAM CBG CAF CAM CBG CAF CAM CBG CAF CAM CPCH CPCH CPCH CPCH CPCH CPCH CPCH CPC		FPFROPCH FPFROPCH HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	$ \begin{array}{c} G-39\\ G-1\\ C-1\\ & 2\\ C-1\\ & 2\\ C-1\\ & 2\\ C-1\\ & 2\\ & 2\\ & 2\\ & 2\\ & 2\\ & 2\\ & 2\\ & $	MBAF MCAMA M	$\begin{array}{c} G-2 & \& & 9 \\ G-2 & \& & 13 \\ G-2 & \& & 15 \\ G-26 & \& & 26 \\ G-34 & g-20 & \& & 21 \\ G-20 & \& & 22 \\ E-26 & E-25 \\ F-5 & F-4 & F-9 \\ F-14 & E-15 & E-37 \\ E-37 & \& & 38 \\ E-113 & E-14 \\ E-12 & E-15 \\ E-17 & E-8 & g-37 \\ E-13 & E-14 \\ E-16 \\ E-12 & E-17 \\ E-18 & E-17 \\ E-19 & E-22 \\ E-21 & \& & 18 \\ B-19 & \& & 20 \\ B-17 & \& & 18 \\ B-19 & \& & 20 \\ B-19 & \& & 18 \\ B-19 & \& & 20 \\ E-20 & \& & 22 \\ D-6 \\ D-6 \\ D-6 \\ D-6 \\ D-6 \\ D-6 \\ D-7 \\ D-7$

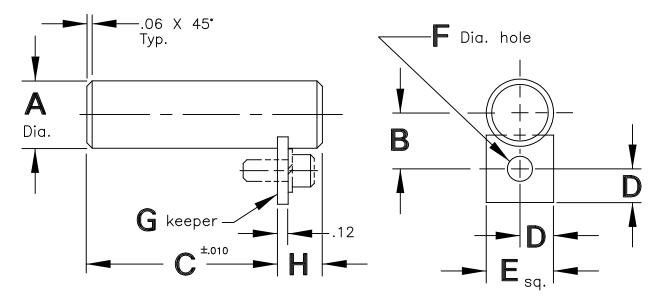
SECTION B

STRAIGHT SHAFTS

KEEPER PIN ASSEMBLY

Type KPH, KPT, KPA & KPC

SEE PAGE E-1 FOR KEEPERS



		A Dia. T	olerance								
A Dia.	KPH	KPA	KPT	KPC	В	D	Е	F	G	н	CAD FILE NO.
.250					.31	.25	.50	.22	K-1	.40	KP250
.312					.34	.25	.50	.22	K-1	.40	KP312
.375					.38	.25	.50	.22	K-1	.40	KP375
.438					.47	.38	.75	.28	K-2	.50	KP438
.500	+.000	+.000	0005	+.000	.50	.38	.75	.28	K-2	.50	KP500
.625	001	002	0015	002	.56	.38	.75	.28	K-2	.50	KP625
.750					.62	.38	.75	.28	K-2	.50	KP750
.875					.69	.38	.75	.28	K-2	.50	KP875
1.000					.88	.50	1.00	.34	K-3	.56	KP1000
1.250					1.00	.50	1.00	.34	K-3	.56	KP1250

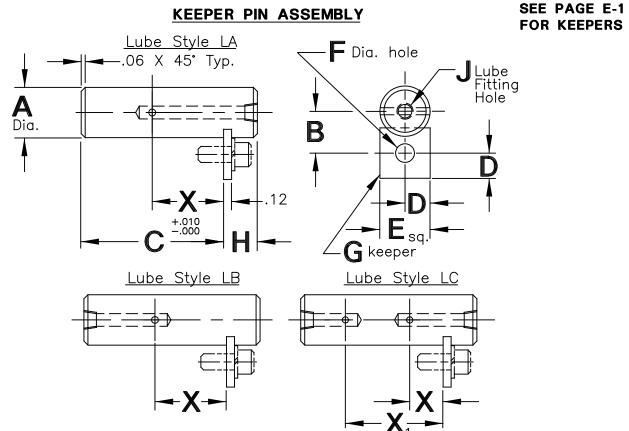
Type _____Material & Heat Treat

KPH12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.KPATurned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.KPT1045 Turned, Ground & Polished.KPC1018 C.R.S.

Keeper included with assembly (screw not included)

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKPH-12-64



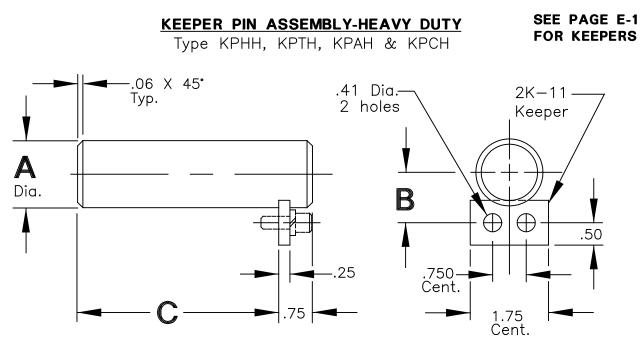
Type Material & Heat Treat

KPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.
KPA Turned, Ground & Polished, Rock "C" 28-32 Uniform Throughout
KPT 1045 Turned, Ground & Polished.
KPC 1018 C.R.S.

Α		A Dia. 1	Folerance	9								J	
Dia.	KPH	KPA	KPT	KPC	в	D	E	F	G	Н	Style LA	Style LB	Style LC
.375					.38	.25	.50	.22	K–1	.40	5/32 Drive	1/4-28 ST	5/32 Drive
.438					.47	.38	.75	.28	K-2	.50	5/32 Drive	1/4–28 ST.	5/32 Drive
.500					.50	.38	.75	.28	K-2	.50	5/32 Drive	1/4–28 ST	5/32 Drive
.625	+.000	+.000	0005		.56	.38	.75	.28	K-2	.50	1/4-28 ST	1/8-27 NPT	1/4-28 ST
.750	001	002	0015	002	.62	.38	.75	.28	K-2	.50	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
.875					.69	.38	.75	.28	K-2	.50	1/8-27 NPT	1/8-27 NPT	1/8–27 NPT
1.000					.88	.50	1.00	.34	K-3	.56	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.250					1.00	.50	1.00	.34	K-3	.56	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKPH-20-100-LA-50



		A Dia. T	olerance	_		
A Dia.	KPHH	KPAH	KPTH	KPCH	В	CAD FILE NO.
1.000					.88	KPH1000
1.250					1.00	KPH1250
1.375					1.06	KPH1375
1.500					1.12	KPH1500
1.625	+.000	+.000	0005	+.000	1.18	KPH1625
1.750	001	002	0035	004	1.25	KPH1750
2.000					1.38	KPH2000
2.250					1.50	KPH2250
2.500					1.62	KPH2500
3.000					1.88	KPH3000

Type <u>Material & Heat Treat</u>

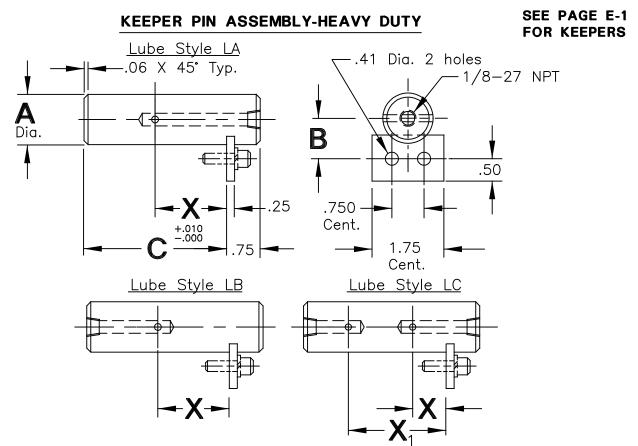
KPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
KPAH Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
KPTH 1045 Turned, Ground & Polished.
KPCH 1018 C.R.S.

Keeper included with assembly (screws not included)

Model Number Development	Detail Standard Pin Ass'y
Heavy Duty Keeper Pin Type ————	<u>KPHH</u> -1.500-12.50
"A" Diameter	
"C" Length ————	

NOTE: All heavy duty pin assemblies are "special" items.

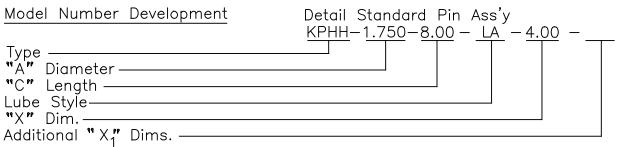
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKPHH-38-320



Type Material & Heat Treat

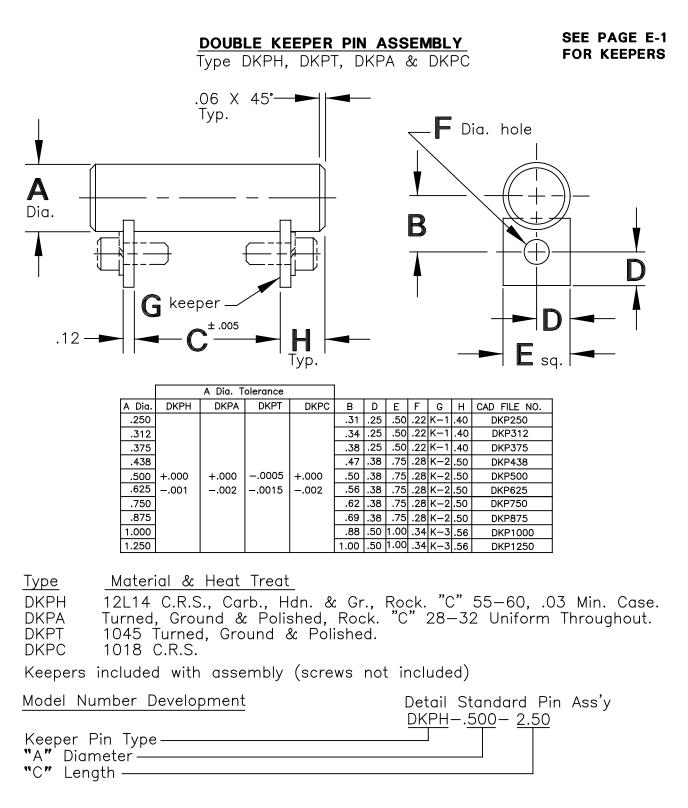
KPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.
KPAH Turned, Ground & Polished, Rock "C" 28-32 Uniform Throughout
KPTH 1045 Turned, Ground & Polished.
KPCH 1018 C.R.S.

Α]	A		A Dia. 1	olerance	1	
Dia.	KPHH	KPAH	KPTH	KPCH	В	Dia.	KPHH	KPAH	KPTH	KPCH	В
1.000					.875	1.750					1.250
1.250			0005		1.000	2.000			0005		1.375
1.375	+.000	+.000	0005 0035	+.000	1.063	2.250	+.000	+.000	0005	+.000	1.500
1.500					1.125	2.500					1.625
1.625					1.187	3.000					1.875



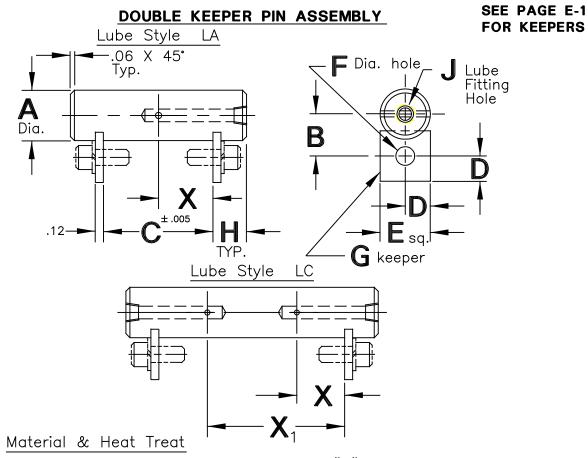
NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKPHH-44-200-LA-100



NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDKPH-12-64



Туре

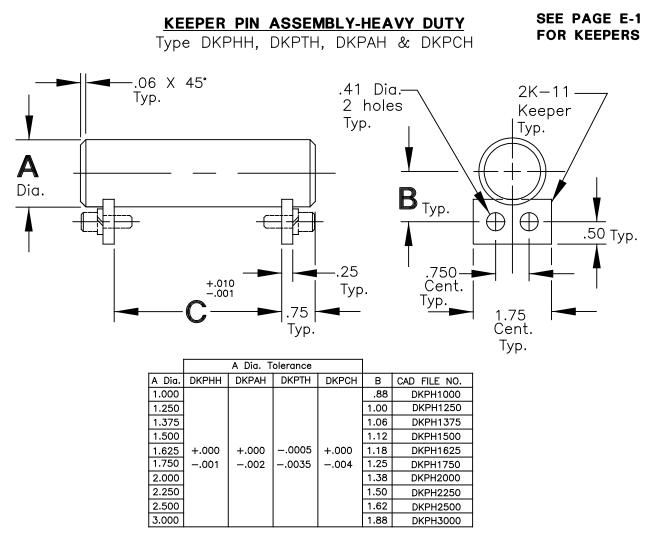
12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55–60, .03 Min. Case. Turned, Ground & Polished, Rock "C" 28–32 Uniform Throughout DKPH DKPA DKPT 1045 Turned, Ground & Polished. DKPC 1018 C.R.S.

A		A Dia. 1	Folerance	l								J	
Dia.	DKPH	DKPA	DKPT	DKPC	в	D	E	F	G	Н	Style LA	Style LB	Style LC
.375					.38	.25	.50	.22	K-1	.40	5/32 Drive	1/4-28 ST	5/32 Drive
.438					.47	.38	.75	.28	K-2	.50	5/32 Drive	1/4-28 ST.	5/32 Drive
.500					.50	.38	.75	.28	K-2	.50	5/32 Drive	1/4-28 ST	5/32 Drive
.625	+.000	+.000	0005		.56	.38	.75	.28	K-2	.50	1/4-28 ST	1/8-27 NPT	1/4-28 ST
.750	001	002	0015	002	.62	.38	.75	.28	K-2	.50	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
.875					.69	.38	.75	.28	K-2	.50	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.000					.88	.50	1.00	.34	K-3	.56	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.250					1.00	.50	1.00	.34	K-3	.56	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT

Model Number Development Detail Standard Pin Ass'y <u>DKPH-.750- 4.00 - LA - 2.00 -</u> Туре "A" Diameter -"C" Length Lube Style-"X" Dim.-Additional "X₁" Dims.

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDKPH-20-100-LA-50



Type Material & Heat Treat

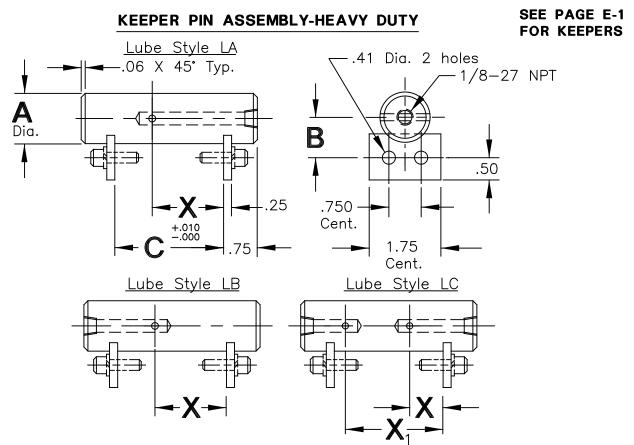
DKPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
DKPAH Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
DKPTH 1045 Turned, Ground & Polished.
DKPCH 1018 C.R.S.

Keepers included with assembly (screws not included)

Model Number Development	Detail Standard Pin Ass'y
	<u>DKPHH</u> -1.500-12.50
Heavy Duty Keeper Pin Type ———	
"A" Diameter —	
"C" Length ————	

NOTE: All heavy duty pin assemblies are "special" items.

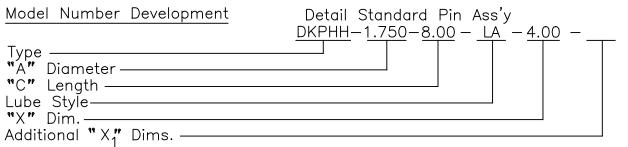
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDKPHH-38-320



Type Material & Heat Treat

DKPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case. DKPAH Turned, Ground & Polished, Rock "C" 28-32 Uniform Throughout DKPTH 1045 Turned, Ground & Polished. DKPCH 1018 C.R.S.

A		A Dia. 1	olerance)	1	1	Α		A Dia. 1	olerance)]
Dia.	DKPHH	DKPAH	DKPTH	DKPCH	В		Dia.	DKPHH	DKPAH	DKPTH	DKPCH	в
1.000					.875		1.750					1.250
1.250			0005		1.000		2.000			0005		1.375
1.375	+.000		0005 0035		1.063		2.250	+.000	002	0005	000	1.500
1.500					1.125		2.500					1.625
1.625					1.187		3.000					1.875



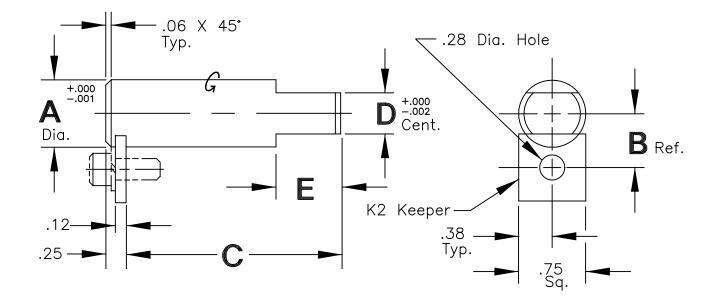
NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDKPHH-44-200-LA-100



SEE PAGE E-1 FOR KEEPERS

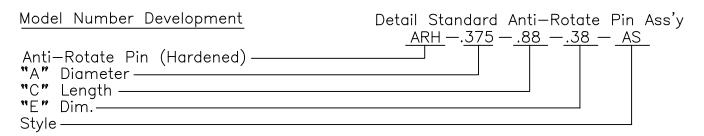
Type ARH Style AS



A Dia.	В	D	E	CAD FILE NO.
.250	.375	.187	.25	AS250
.312	.406	.249	.31	AS312
.375	.437	.249	.38	AS375
.438	.469	.312	.38	AS438
.500	.500	.374	.38	AS500
.562	.531	.406	.50	AS562
.625	.562	.499	.50	AS625
.688	.594	.499	.50	AS688
.750	.625	.499	.50	AS750
.812	.656	.499	.62	AS812
.875	.688	.624	.62	AS875
.937	.719	.624	.75	AS937
1.000	.750	.749	.75	AS1000

NOTE: Standard lengths for diameters .50" and under are from .50" to 1.50" in .25" increments, and standard lengths for diameters .62" and over are from 1.00" to 2.50" in .50" increments. Other lengths may be ordered as "special" items.

Material: 12L14 C.R.S. Heat Treat: Carb., Hdn. & Gr., Rock."C" 55-60, .03 Min. Case, Core soft Keeper included with assembly (screw not included)

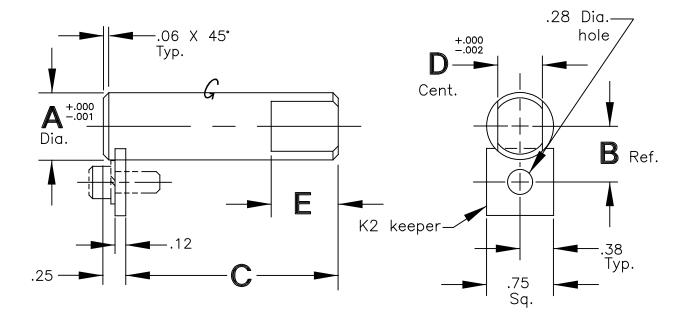


To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MARH-10-22-10-AS



Type ARH Style BS

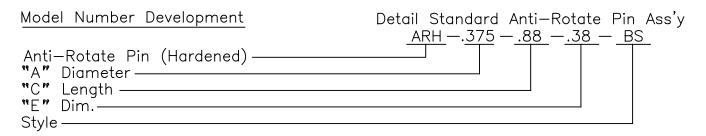
SEE PAGE E-1 FOR KEEPERS



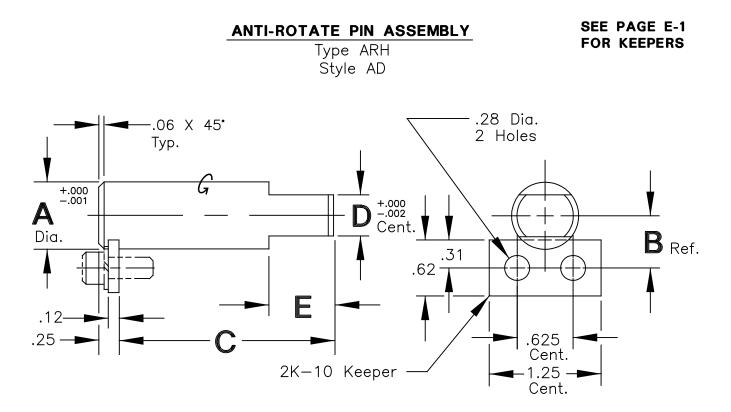
A Dia.	В	D	E	CAD FILE NO.
.250	.375	.187	.25	BS250
.312	.406	.249	.31	BS312
.375	.437	.249	.38	BS375
.438	.469	.312	.38	BS438
.500	.500	.374	.38	BS500
.562	.531	.406	.50	BS562
.625	.562	.499	.50	BS625
.688	.594	.499	.50	BS688
.750	.625	.499	.50	BS750
.812	.656	.499	.62	BS812
.875	.688	.624	.62	BS875
.937	.719	.624	.75	BS937
1.000	.750	.749	.75	BS1000

NOTE: Standard lengths for diameters .50" and under are from .50" to 1.50" in .25" increments, and standard lengths for diameters .62" and over are from 1.00" to 2.50" in .50" increments. Other lengths may be ordered as "special" items.

Material: 12L14 C.R.S. Heat Treat: Carb., Hdn. & Gr., Rock."C" 55-60, .03 Min. Case, Core soft Keeper included with assembly (screw not included)



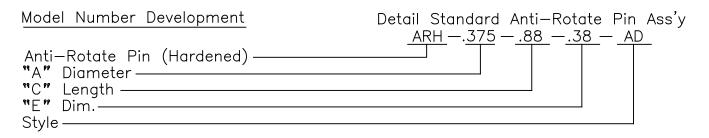
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MARH-10-22-10-BS



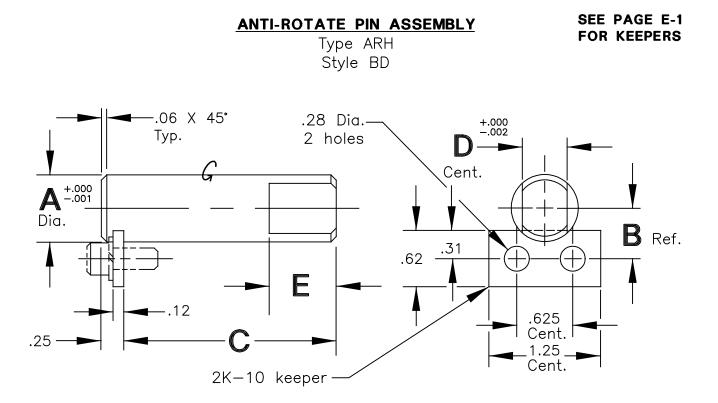
A Dia.	В	D	E	CAD FILE NO.
.250	.375	.187	.25	AD250
.312	.406	.249	.31	AD312
.375	.437	.249	.38	AD375
.438	.469	.312	.38	AD438
.500	.500	.374	.38	AD500
.562	.531	.406	.50	AD562
.625	.562	.499	.50	AD625
.688	.594	.499	.50	AD688
.750	.625	.499	.50	AD750
.812	.656	.499	.62	AD812
.875	.688	.624	.62	AD875
.937	.719	.624	.75	AD937
1.000	.750	.749	.75	AD1000

NOTE: Standard lengths for diameters .50" and under are from .50" to 1.50" in .25" increments, and standard lengths for diameters .62" and over are from 1.00" to 2.50" in .50" increments. Other lengths may be ordered as "special" items.

Material: 12L14 C.R.S. Heat Treat: Carb., Hdn. & Gr., Rock."C" 55-60, .03 Min. Case, Core soft Keeper included with assembly (screw not included)



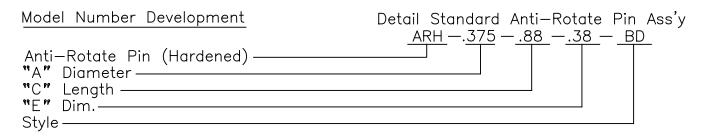
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MARH-10-22-10-AD



A Dia.	В	D	Е	CAD FILE NO.
.250	.375	.187	.25	BD250
.312	.406	.249	.31	BD312
.375	.437	.249	.38	BD375
.438	.469	.312	.38	BD438
.500	.500	.374	.38	BD500
.562	.531	.406	.50	BD562
.625	.562	.499	.50	BD625
.688	.594	.499	.50	BD688
.750	.625	.499	.50	BD750
.812	.656	.499	.62	BD812
.875	.688	.624	.62 BD875	
.937	.719	.624	.75 BD937	
1.000	.750	.749	.75	BD1000

NOTE: Standard lengths for diameters .50" and under are from .50" to 1.50" in .25" increments, and standard lengths for diameters .62" and over are from 1.00" to 2.50" in .50" increments. Other lengths may be ordered as "special" items.

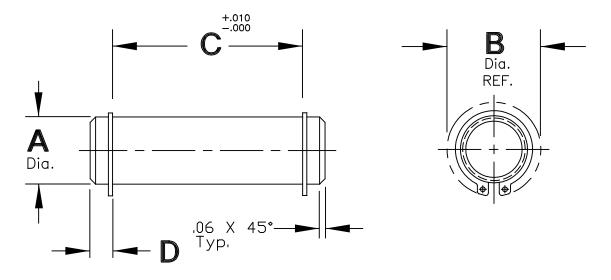
Material: 12L14 C.R.S. Heat Treat: Carb., Hdn. & Gr., Rock."C" 55-60, .03 Min. Case, Core soft Keeper included with assembly (screw not included)



To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MARH-10-22-10-BD

DOUBLE SNAP RING PIN ASSEMBLY

Type DSPH, DSPT, DSPA & DSPC



		A Dia. T	olerance		-		
A Dia.	DSPH	DSPA	DSPT	DSPC	В	D	CAD FILE NO.
.250					.43	.12	DSP250
.312					.52	.16	DSP312
.375					.59	.18	DSP375
.438					.64	.18	DSP438
.500	+.000	+.000	0005	+.000	.74	.25	DSP500
.625	001	002	0015	002	.87	.25	DSP625
.750					1.05	.25	DSP750
.875					1.16	.25	DSP875
1.000					1.35	.25	DSP1000
1.250					1.62	.31	DSP1250

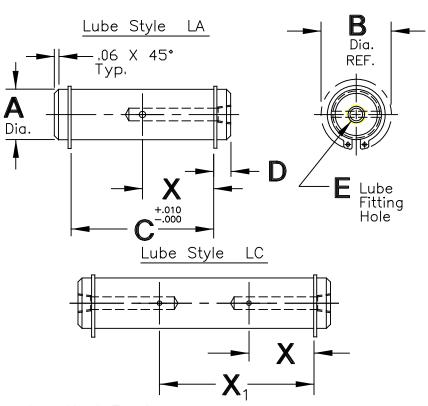
Type Material & Heat Treat

DSPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. DSPA Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout. DSPT 1045 Turned, Ground & Polished. DSPC 1018 C.R.S. Snap rings included with assembly Model Number Development Detail Standard Pin Ass'y

	DSPH500- 2.50
Double Snap Ring Pin ——— "A" Diameter ————	
"C" Length ———	

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDSPH-12-64



DOUBLE SNAP RING PIN ASSEMBLY

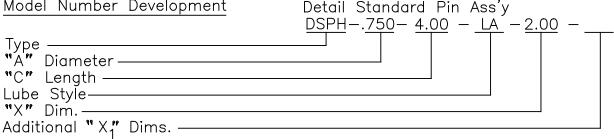
Material & Heat Treat Туре

12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55–60, .03 Min. Case. Turned, Ground & Polished, Rock "C" 28–32 Uniform Throughout DSPH DSPA DSPT 1045 Turned, Ground & Polished.

DSPC 1018 C.R.S.

Α		A Dia. 1	olerance				
Dia.	DSPH	DSPA	DSPT	DSPC	В	D	E
.375					.59	.18	1/4-28 ST
.438					.64	.18	1/4-28 ST
.500					.74	.25	1/4-28 ST
.625	+.000	+.000	0005	+.000	.87	.25	1/8-27 NPT
.750	001	002	0015	002	1.05	.25	1/8-27 NPT
.875					1.16	.25	1/8-27 NPT
1.000					1.35	.25	1/8-27 NPT
1.250					1.62	.31	1/8-27 NPT

Model Number Development

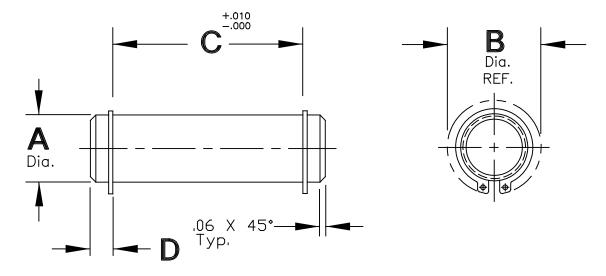


NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDSPH-20-200-LA-100

DOUBLE SNAP RING PIN ASSEMBLY - HEAVY DUTY

Type DSPHH, DSPTH, DSPAH & DSPCH

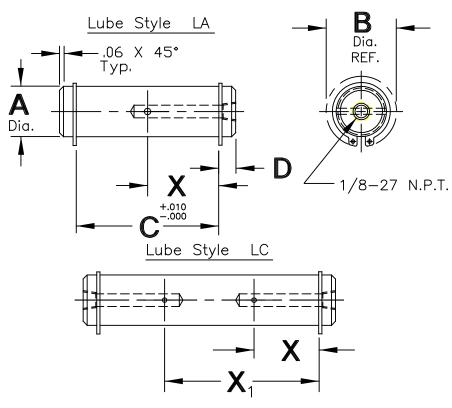


		A Dia. T	olerance		-		
A Dia.	DSPHH	DSPAH	DSPTH	DSPCH	В	D	CAD FILE NO.
1.375					1.72	.31	DSPH1375
1.500					1.90	.31	DSPH1500
1.625	+.000	+.000	0005	+.000	2.08	.31	DSPH1625
1.750	001	002	0035		2.21	.31	DSPH1750
2.000	.001	.002		.00+	2.44	.38	DSPH2000
2.250					2.74	.38	DSPH2250
2.500					2.98	.38	DSPH2500
3.000					3.53	.38	DSPH3000

Typ<u>e</u> Material & Heat Treat 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55–60, .03 Min. Case. Turned, Ground & Polished, Rock. "C" 28–32 Uniform Throughout. DSPHH DSPAH 1045 Turned, Ground & Polished. DSPTH DSPCH 1018 C.R.S. Snap rings included with assembly Model Number Development Detail Standard Pin Ass'y DSPHH-1.500-10.00 Heavy Duty Double Snap Ring Pin -"A" Diameter-"C" Length -

NOTE: All heavy duty pin assemblies are "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDSPHH-38-250



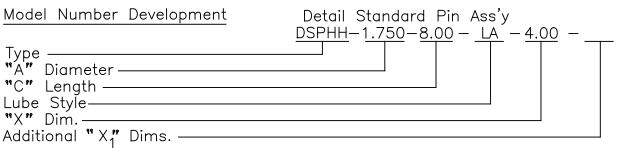
DOUBLE SNAP RING PIN ASSEMBLY - HEAVY DUTY

Type Material & Heat Treat

DSPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55–60, .03 Min. Case. DSPAH Turned, Ground & Polished, Rock "C" 28–32 Uniform Throughout DSPTH 1045 Turned, Ground & Polished. DSPCH 1018 C.R.S.

	А		A Dia. T				
	Dia.	DSPHH	DSPAH	DSPTH	DSPCH	В	D
[1.375					1.72	.31
[1.500	+.000	+.000	0005 0035	+.000	1.90	.31
[1.625	001	002	0035	004	2.08	.31
	1.750					2.21	.31

A		A Dia. T				
Dia.	DSPHH	DSPAH	DSPTH	DSPCH	В	D
2.000					2.44	.38
2.250		+.000	0005 0035	+.000	2.74	.38
2.500	001	002	0035	004	2.98	.38
3.000					3.53	.38



NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDSPHH-44-200-LA-100

SINGLE FLAT PIN Type SFH, SFT, SFA & SFC B .06 X 45° Cent. E Typ. Α Dia. +.010 -.000 A Dia. Tolerance SFH SFC A Dia. SFA SFT в DE CAD FILE NO. .250 .25 .28 .06 SF250 .25 .28 .06 SF312 .312 .31 .40 .06 .375 SF375 .438 .31 .40 .06 SF438 -.0005 .40 .09 .500 +.000 +.000 +.000 .44 SF500 .625 -.001 -.002 -.0015 -.002 .44 .40 .09 SF625 .50 .750 .53 .12 SF750 .875 .53 .12 .50 SF875 .50 .53 .12 1.000 SF1000 .50 .53 .12

Material & Heat Treat Туре

1.250

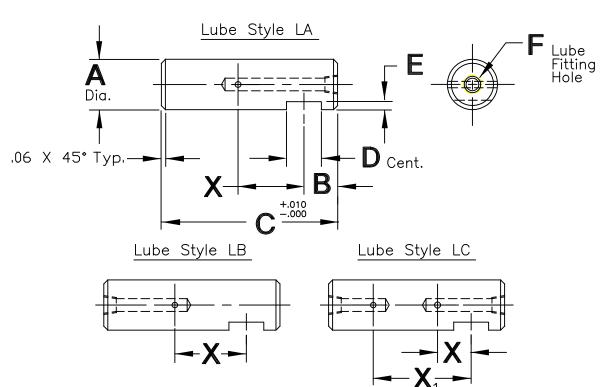
SFH	12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
SFA	Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
SFT	1045 Turned, Ground & Polished.
SFC	1018 C.R.S.

SF1250

Model Number Development	Detail Standard Pin Ass'y
	<u>SFH</u> <u>500</u> - <u>2.50</u> - <u>.62</u>
Single Flat Pin ———— "A" Diameter —————	
"A" Diameter ————	
"C" Length —	
"B" Dimension————	

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSFH-12-64-18



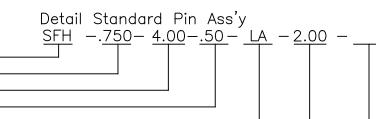
SINGLE FLAT PIN

Material & Heat Treat Туре

12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55–60, .03 Min. Case. Turned, Ground & Polished, Rock "C" 28–32 Uniform Throughout SFH SFA SFT 1045 Turned, Ground & Polished. SFC 1018 C.R.S.

А		A Dia. T	olerance						F	
Dia.	SFH	SFA	SFT	SFC	В	D	E	Style LA	Style LB	Style LC
.375					.31	.40	.06	5/32 Drive	1/4-28 ST	5/32 Drive
.438					.31	.40	.06	5/32 Drive	1/4–28 ST.	5/32 Drive
.500					.44	.40	.09	5/32 Drive	1/4-28 ST	5/32 Drive
.625	+.000	+.000	0005	+.000	.44	.40	.09	1/4-28 ST	1/8-27 NPT	1/4-28 ST
.750	001	002	0015	002	.50	.53	.12	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
.875					.50	.53	.12	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.000					.50	.53	.12	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.250					.50	.53	.12	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT

Model Number Development



"C" Length "B" Dimension -

"Á" Diameter -

Type -

Lube Style-"X" Dim.-

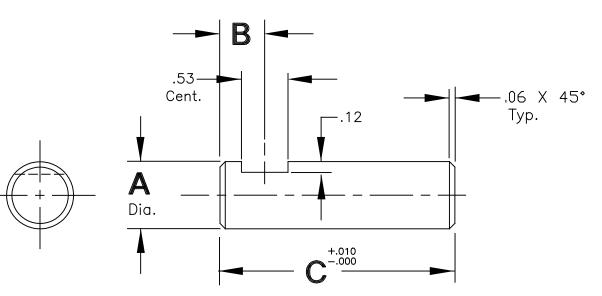
Additional "X₁" Dims.

NOTE: All pins with lube holes are "special, items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSFH-20-100-12-LA-50

SINGLE FLAT PIN - HEAVY DUTY

Type SFHH, SFTH, SFAH & SFCH



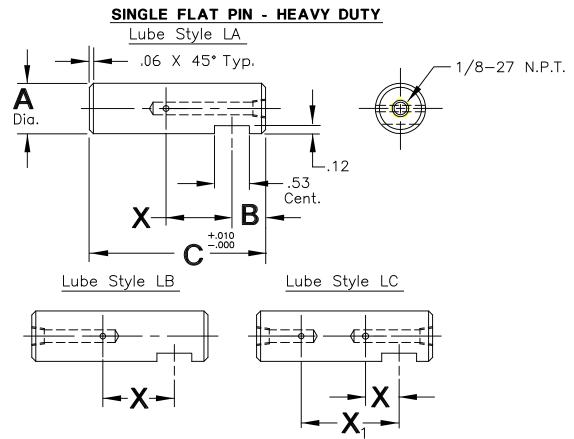
		A Dia. T			
A Dia.	SFHH	SFAH	SFTH	SFCH	CAD FILE NO.
1.375					SFHH1375
1.500					SFHH1500
1.625					SFHH1625
1.750	+.000	+.000	0005	+.000	SFHH1750
2.000	001	002	0035	004	SFHH2000
2.250					SFHH2250
2.500					SFHH2500
3.000					SFHH3000

TypeMaterial & Heat TreatSFHH12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.SFAHTurned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.SFTH1045 Turned, Ground & Polished.SFCH1018 C.R.S.

Model Number Development	Detail Standard Pin Ass'y
	<u>SFHH – 1.500 –10.00 – .62</u>
Single Flat Pin Type ———— "A" Diameter —————	
"C" Length —	
"B" Dimension————	

NOTE: All heavy duty pin assemblies are "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSFHH-38-250-18

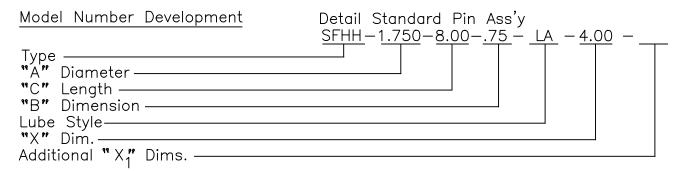


Type Material & Heat Treat

SFHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.
SFAH Turned, Ground & Polished, Rock "C" 28-32 Uniform Throughout
SFTH 1045 Turned, Ground & Polished.
SFCH 1018 C.R.S.

SFCH IUIO C.

Α		A Dia. 1	1. Tolerance			А		A Dia. 1	olerance	
Dia.	SFHH	SFAH	SFTH	SFCH		Dia.	SFHH	SFAH	SFTH	SFCH
1.375						2.000				
1.500	+.000	+.000	0005	+.000		2.250			0005	
1.625	001	002	0035	004		2.500	001	002	0035	004
1.750						3.000				

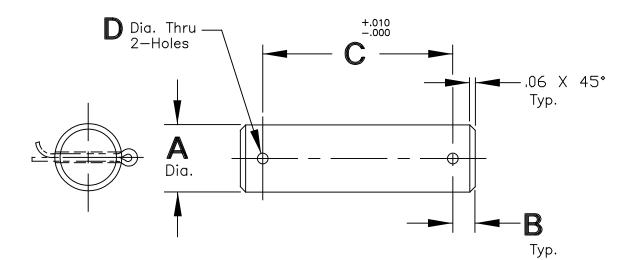


NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSFHH-44-200-20-LA-100

COTTER PIN SHAFT ASSEMBLY

Type CPH, CPT, CPA & CPC



		A Dia. T	olerance		_		
A Dia.	CPH	CPA	CPT	CPC	В	D	CAD FILE NO.
.250					.18	.09	CP250
.312					.18	.12	CP312
.375					.18	.12	CP375
.438					.25	.12	CP438
.500	+.000	+.000	0005	+.000	.25	.12	CP500
.625	001	002	0015	002	.25	.12	CP625
.750					.25	.12	CP750
.875					.25	.12	CP875
1.000					.38	.12	CP1000
1.250					.38	.18	CP1250

Type Material & Heat Treat

CPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
CPA Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
CPT 1045 Turned, Ground & Polished.
CPC 1018 C.R.S.
Cotter pins included with assembly.

Model Number Development

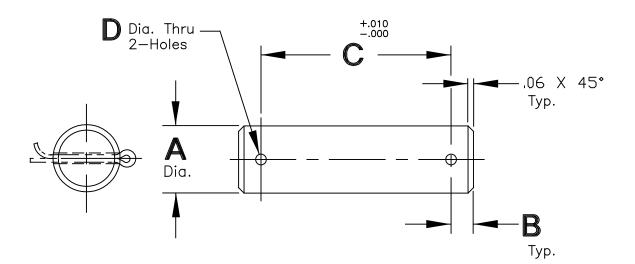
Model Number Development	Detail Standard Pin Ass'y
Cotter Pin Type —	$\frac{CPH}{1} - \frac{500}{1} - \frac{2.50}{1}$
"A" Diameter	
"C" Length ———	

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MCPH-12-64

COTTER PIN SHAFT ASSEMBLY-HEAVY DUTY

Type CPHH, CPTH, CPAH & CPCH



		A Dia. T	olerance		-		
A Dia.	CPHH	CPAH	CPTH	CPCH	В	D	CAD FILE NO.
1.375					.38	.18	CPHH1375
1.500					.38	.18	CPHH1500
1.625					.38	.18	CPHH1625
1.750	+.000	+.000	0005	+.000	.38	.18	CPHH1750
2.000	001	002	0035	004	.50	.25	CPHH2000
2.250					.50	.25	CPHH2250
2.500					.50	.25	CPHH2500
3.000					.50	.25	CPHH3000

Type _____Material & Heat Treat____

CPHH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
CPAH Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
CPTH 1045 Turned, Ground & Polished.
CPCH 1018 C.R.S.
Cotter pins included with assembly.

Model Number Development

Detail Star CPHH-1.5		Ass'y

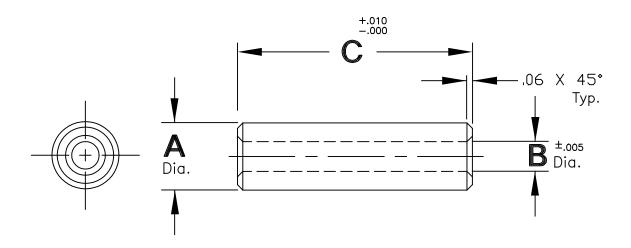
Cotter Pin Type – "A" Diameter —— "C" Length ———

NOTE: All heavy duty pins assemblies are "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MCPHH-38-250

HOLLOW PIN

Type HPH, HPT, HPA & HPC



		A Dia. T]					
A Dia.	HPH	HPA	HPT	HPC	B Dia.	CAD FILE NO.		
.438					.280	HP438		
.500					.280	HP500		
.625	+.000	+.000	0005	+.000	.280	HP625		
.750	000 001	002				002	.406	HP750
.875	001	002	0013	002	.406	HP875		
1.000					.530	HP1000		
1.250					.688	HP1250		

Type Material & Heat Treat

HPH
H2L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
HPA
HPA
HPT
H045 Turned, Ground & Polished.
HPC
HPC
H2L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 28-32 Uniform Throughout.
HPC

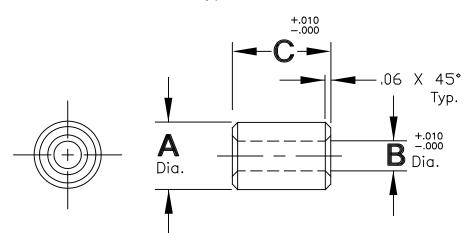
Model Number Development	Detail Standard Pin Ass'y
	<u>HPH</u> <u>750</u> <u>403</u> - <u>2.50</u>
Hollow Pin Type — — — — — — — — — — — — — — — — — — —	
"A" Diameter	
"B" Diameter	
"C" Length	

NOTE: Standard lengths for 'A' diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for 'A' diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHPH-20-10-64

HOLLOW DOWEL

Type HDH



A Dia. (nom.)	A Dia. (actual)	B Dia.	CAD FILE NO.
.44	.4378 / .4376	.218	HD438
.50	.5003 / .5001	.280	HD500
.56	.5628 / .5626	.280	HD562
.62	.6253 / .6251	.280	HD625
.75	.7503 / .7501	.343	HD750
.88	.8753 / .8751	.406	HD875
1.00	1.0003 / 1.0001	.406	HD1000

TypeMaterial & Heat TreatHDHDrill Rod., Carb., Hdn. & Gr., Rock. "C" 55-60, .02 Min. Case.

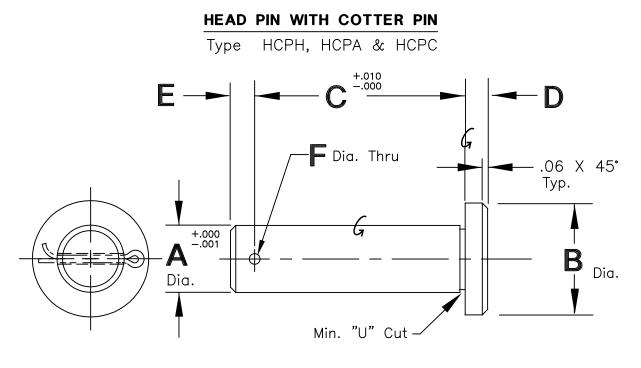
Model Number Development	Detail Standard Hollow Dowel
	<u>HDH</u> <u>750</u> <u>343</u> - <u>1.00</u>
Hollow Dowel "A" Dia. (Nom.)	
"B" Diamèter	
"C" Length ————	

NOTE: Standard lengths for all 'A' diameters is 1.5 x 'A' dia. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHDH-20-10-25

SECTION C

HEAD TYPE SHAFTS



A Dia.	B Dia.	D	E	F	CAD FILE NO.
.250	.50	.12	.18	.09	HCP250
.312	.56	.12	.18	.12	HCP312
.375	.62	.18	.18	.12	HCP375
.438	.88	.18	.25	.12	HCP438
.500	1.00	.25	.25	.12	HCP500
.625	1.12	.25	.25	.12	HCP625
.750	1.25	.25	.25	.12	HCP750
.875	1.38	.31	.25	.12	HCP875
1.000	1.50	.31	.38	.12	HCP1000
1.250	1.88	.38	.38	.18	HCP1250

Type Material & Heat Treat

HCPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. HCPA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. HCPC 1018 C.R.S.

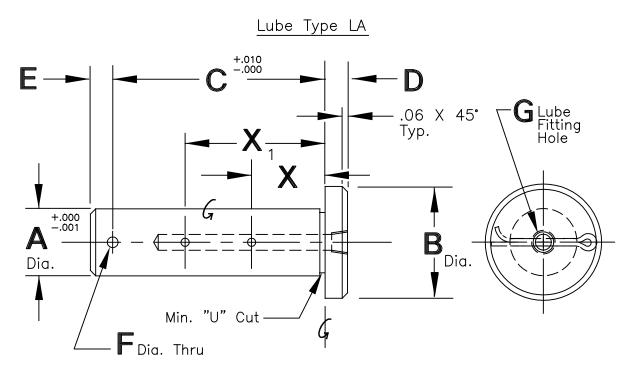
Cotter pin included with assembly.

Model Number Development	Detail Standard Pin Ass'y
Head Pin with Cotter Pin ————	<u>HCPH</u> <u>500</u> - <u>2.50</u>
"A" Diameter	
"C" Length ————	

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHCPH-12-64





Type Material & Heat Treat	Туре	Material	& +	Heat	Treat	
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HCPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case. HCPA Pre-heat treated Alloy, Rock "C" 28-32 Uniform Throughout. HCPC 1018 C.R.S.

Cotter pin included with assembly.

A Dia.	B Dia.	D	Е	F	G
.375	.62	.18	.18	.12	5/32 Drive
.438	.88	.18	.25	.12	5/32 Drive
.500	1.00	.25	.25	.12	1/4-28 ST
.625	1.12	.25	.25	.12	1/8–27 NPT
.750	1.25	.25	.25	.12	1/8-27 NPT
.875	1.38	.31	.25	.12	1/8–27 NPT
1.000	1.50	.31	.38	.12	1/8-27 NPT
1.250	1.88	.38	.38	.18	1/8-27 NPT

 Model Number Development
 Detail Standard Pin Ass'y

 HCPH -.750 - 4.00 - LA - 2.00

 "A" Diameter

 "C" Length

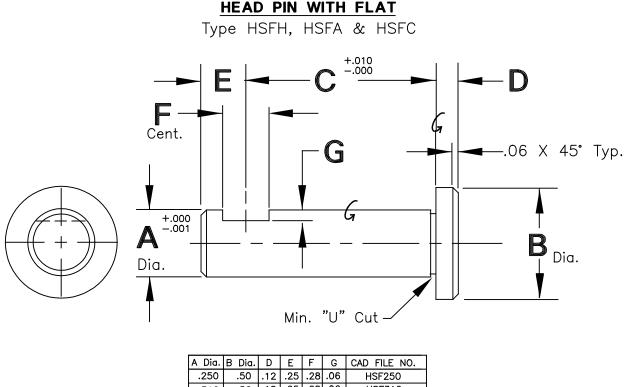
 Lube Style

 "X" Dim.

 Additional

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHCPH-20-100-LA-50



	יטע ע		L.	1	6	CAD TILL NO.
.250	.50	.12	.25	.28	.06	HSF250
.312	.56	.12	.25	.28	.06	HSF312
.375	.62	.18	.31	.40	.06	HSF375
.438	.88	.18	.31	.40	.06	HSF438
.500	1.00	.25	.44	.40	.09	HSF500
.625	1.12	.25	.44	.40	.09	HSF625
.750	1.25	.25	.50	.53	.12	HSF750
.875	1.38	.31	.50	.53	.12	HSF875
1.000	1.50	.31	.50	.53	.12	HSF1000
1.250	1.88	.38	.50	.53	.12	HSF1250

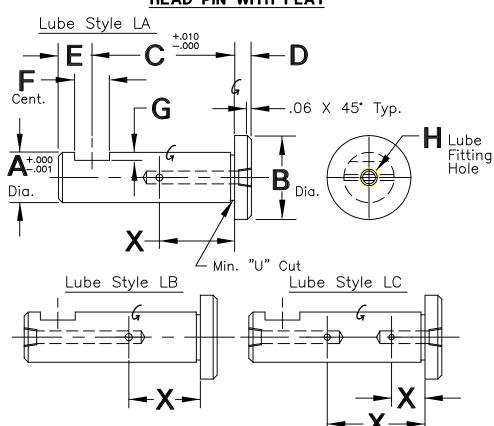
Type Material & Heat Treat

HSFH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. HSFA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. HSFC 1018 C.R.S.

Model Number Development	Detail Standard Pin Ass'y
	<u>HSFH</u> <u>500</u> - <u>2.50</u> <u>62</u>
Head Pin with Flat	
"A" Diameter —	
"C" Length	
"E" Dimension	
	•

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHSFH-12-64-18



HEAD PIN WITH FLAT

Туре Material & Heat Treat

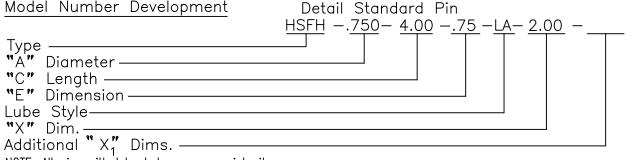
12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case. HSFH Pre-heat treated Alloy, Rock "C" 28-32 Uniform Throughout. HSFA

HSFC

1018 C.R.S.

						H				
A Dia.	B Dia.	D	E	F	G	Style LA	Style LB	Style LC		
.375	.62	.18	.31	.40	.06	5/32 Drive	5/32 Drive	5/32 Drive		
.438	.88	.18	.31	.40	.06	5/32 Drive	5/32 Drive	5/32 Drive		
.500	1.00	.25	.44	.40	.09	1/4–28 ST.	5/32 Drive	5/32 Drive		
.625	1.12	.25	.44	.40	.09	1/8–27 NPT.	1/4–28 ST.	1/4-28 ST.		
.750	1.25	.25	.50	.53	.12	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.		
.875	1.38	.31	.50	.53	.12	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.		
1.000	1.50	.31	.50	.53	.12	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.		
1.250	1.88	.38	.50	.53	.12	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.		

Model Number Development



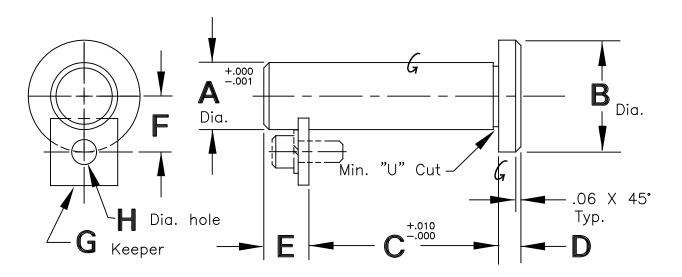
NOTE: All pins with lube holes are "special, items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHSFH-20-100-20-LA-50

HEAD PIN WITH KEEPER

SEE PAGE E-1 FOR KEEPERS

Type HKPH, HKPA & HKPC



		~	-	-			
A Dia.	B Dia.	D	E	F	G	Н	CAD FILE NO.
.250	.50	.12	.40	.31	K-1	.22	HKP250
.312	.56	.12	.40	.34	K-1	.22	HKP312
.375	.62	.18	.40	.38	K-1	.22	HKP375
.438	.88	.18	.50	.47	K-2	.28	HKP438
.500	1.00	.25	.50	.50	K-2	.28	HKP500
.625	1.12	.25	.50	.56	K-2	.28	HKP625
.750	1.25	.25	.50	.62	K-2	.28	HKP750
.875	1.38	.31	.50	.69	K-2	.28	HKP875
1.000	1.50	.31	.56	.88	K-3	.34	HKP1000
1.250	1.88	.38	.56	1.00	K-3	.34	HKP1250

Type Material & Heat Treat

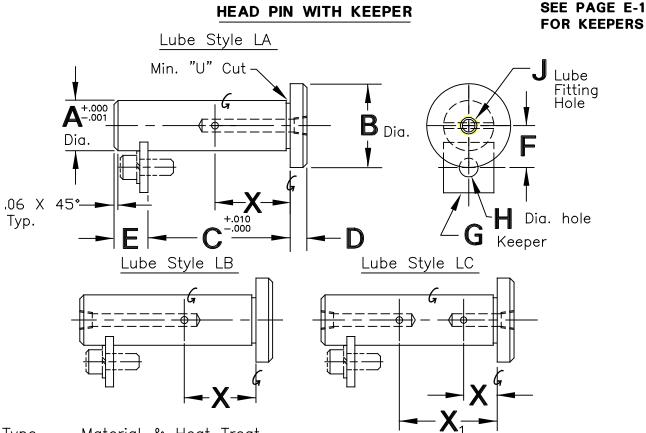
HKPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
HKPA Pre-heat treated Alloy, Rock."C" 28-32 Uniform Throughout.
HKPC 1018 C.R.S.

Keeper included with assembly (screw not included)

Model Number	Developm	nent	Detail	Standard Pin	Ass'y
			<u>HKPH</u>	<u>500</u> - <u>2.50</u>	-
Head Pin with "A" Diameter -					
"C" Length —					

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHKPH-12-64



Type Material & Heat Treat

HKPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.
HKPA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout.
HKPC 1018 C.R.S.

								J	
A Dia.	B Dia.	D	E	F	G	Н	Style LA	Style LB	Style LC
.375	.62	.18	.40	.38	K–1	.22	1/4-28 ST	5/32 Drive	5/32 Drive
.438	.88	.18	.50	.47	K-2	.28	1/4-28 ST	5/32 Drive	5/32 Drive
.500	1.00	.25	.50	.50	K-2	.28	1/4-28 ST	5/32 Drive	5/32 Drive
.625	1.12	.25	.50	.56	K-2	.28	1/8-27 NPT	1/4–28 ST	1/4-28 ST
.750	1.25	.25	.50	.62	K-2	.28	1/8-27 NPT	1/8–27 NPT	1/8-27 NPT
.875	1.38	.31	.50	.68	K-2	.28	1/8-27 NPT	1/8–27 NPT	1/8-27 NPT
1.000	1.50	.31	.56	.88	K-3	.34	1/8-27 NPT	1/8-27 NPT	1/8-27 NPT
1.250	1.88	.38	.56	1.00	K-3	.34	1/8–27 NPT	1/8–27 NPT	1/8-27 NPT

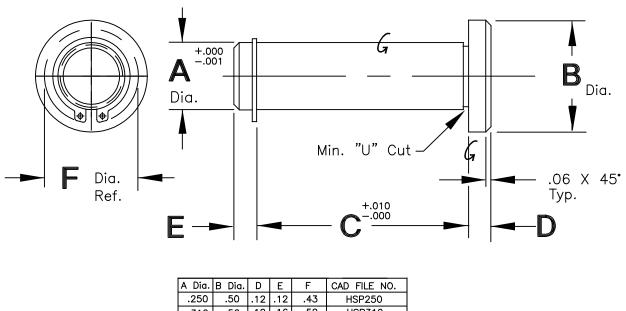
Model Number Development	Detail Standard Pin Ass'y HKPH —.750— 4.00 — LA — 2.00 —
Type "A" Diameter "C" Length	
Lube Style "X" Dim.	
Additional "X ₁ " Dims. ———	

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHKPH-20-100-LA-50

HEAD PIN WITH SNAP RING

Type HSPH, HSPA & HSPC



.250	.50	.12	.12	.43	HSP250
.312	.56	.12	.16	.52	HSP312
.375	.62	.18	.18	.59	HSP375
.438	.88	.18	.18	.64	HSP438
.500	1.00	.25	.25	.74	HSP500
.625	1.12	.25	.25	.87	HSP625
.750	1.25	.25	.25	1.05	HSP750
.875	1.38	.31	.25	1.16	HSP875
1.000	1.50	.31	.25	1.35	HSP1000
1.250	1.88	.38	.31	1.62	HSP1250

Type _____Material & Heat Treat__

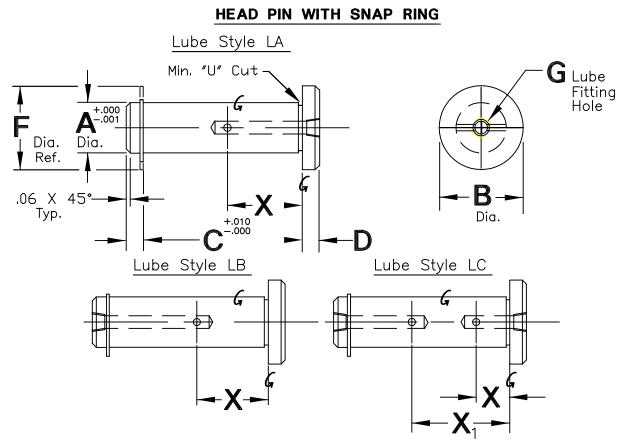
HSPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. HSPA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. HSPC 1018 C.R.S.

Snap ring included with assembly.

Model Number Development	Detail Standard Pin Ass'y
Head Pin with Snap Ring ————	$\frac{\text{HSPH}}{1} - \frac{.500}{1} - \frac{2.50}{1}$
"A" Diameter	
"C" Length ————	

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHSPH-12-64



Type Material & Heat Treat

HSPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.

HSPA Pre-heat treated Alloy, Rock "C" 28-32 Uniform Throughout.

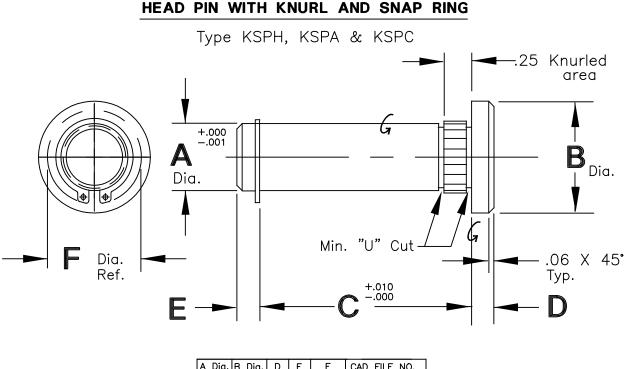
HSPC 1018 C.R.S.

B Dia.	D	Е	F Dia.	G
.62	.18	.18	.59	1/4–28 ST
.88	.18	.18	.64	1/4-28 ST
1.00	.25	.25	.74	1/4–28 ST
1.12	.25	.25	.87	1/8–27 NPT
1.25	.25	.25	1.05	1/8–27 NPT
1.38	.31	.25	1.16	1/8–27 NPT
1.50	.31	.25	1.35	1/8–27 NPT
1.88	.38	.31	1.62	1/8–27 NPT
	.62 .88 1.00 1.12 1.25 1.38 1.50	.62 .18 .88 .18 1.00 .25 1.12 .25 1.25 .25 1.38 .31 1.50 .31	.62 .18 .18 .88 .18 .18 1.00 .25 .25 1.12 .25 .25 1.25 .25 .25 1.38 .31 .25 1.50 .31 .25	.62 .18 .18 .59 .88 .18 .18 .64 1.00 .25 .25 .74 1.12 .25 .25 .87 1.25 .25 .25 1.05 1.38 .31 .25 1.16 1.50 .31 .25 1.35

Model Number Development	Detail Standard Pin Ass'y
Tupe	$\frac{\text{HSPH}}{1} - \frac{.750}{1} - \frac{4.00}{1} - \frac{\text{LA}}{1} - \frac{2.00}{1} - \frac{.00}{1} - \frac{.00}{$
Type "A" Diameter "C" Length	
"X" Dim.	
Additional "X ₁ " Dims. —	

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHSPH-20-100-LA-50



A Dia.	B Dia.	D	E	F	CAD FILE NO.
.250	.50	.12	.12	.43	KSP250
.312	.56	.12	.16	.52	KSP312
.375	.62	.18	.18	.59	KSP375
.438	.88	.18	.18	.64	KSP438
.500	1.00	.25	.25	.74	KSP500
.625	1.12	.25	.25	.87	KSP625
.750	1.25	.25	.25	1.05	KSP750
.875	1.38	.31	.25	1.16	KSP875
1.000	1.50	.31	.25	1.35	KSP1000
1.250	1.88	.38	.31	1.62	KSP1250

Type _____Material & Heat Treat__

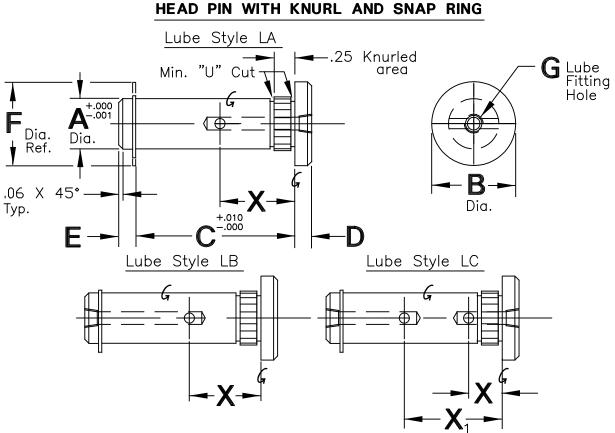
KSPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. KSPA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. KSPC 1018 C.R.S.

Snap ring included with assembly.

Mode	I Number	Development		Detail	Standard	Pin	Ass'y
Head	l Pin with	Knurl and Sn	ap Ring	 KSPH-	<u>500</u> - <u>2.</u>	<u>50</u>	-
۹۹ A	Diameter -						
"C"	Length —						

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKSPH-12-64



Type Material & Heat Treat

KSPH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case.

KSPA Pre-heat treated Alloy,Rock "C" 28-32 Uniform Throughout.

KSPC 1018 C.R.S.

A Dia.	B Dia.	D	E	F Dia.	G
.375	.62	.18	.18	.59	1/4–28 ST
.438	.88	.18	.18	.64	1/4-28 ST
.500	1.00	.25	.25	.74	1/4-28 ST
.625	1.12	.25	.25	.87	1/8-27 NPT
.750	1.25	.25	.25	1.05	1/8–27 NPT
.875	1.38	.31	.25	1.16	1/8–27 NPT
1.000	1.50	.31	.25	1.35	1/8–27 NPT
1.250	1.88	.38	.31	1.62	1/8–27 NPT

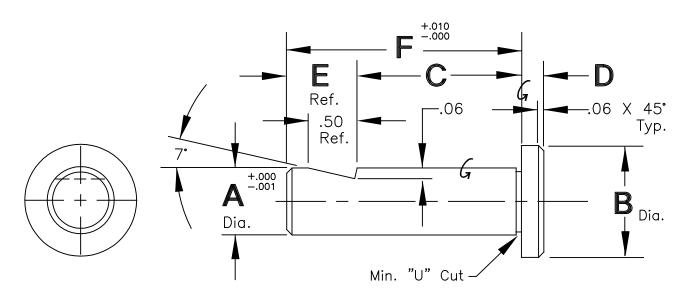
Model Number Development	Detail Standard Pin Ass'y
Turner	$\frac{\text{KSPH}}{1} - \frac{.750}{1} - \frac{4.00}{1} - \frac{\text{LA}}{1} - \frac{2.00}{1} - \frac{.00}{1} - \frac{.00}{$
"A" Diameter —	
"C" Length ————	
Lube Style "X" Dim	
Additional "X" Dims. —	

NOTE: All pins with lube holes are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MKSPH-20-100-LA-50

HEAD PIN WITH WHISTLENOTCH

Type HWH, HWA & HWC



A Dia.	B Dia.	D	E	CAD FILE NO.
.250	.50	.12	.62	HW250
.312	.56	.12	.62	HW312
.375	.62	.18	.62	HW375
.438	.88	.18	.62	HW438
.500	1.00	.25	.75	HW500
.625	1.12	.25	.75	HW625
.750	1.25	.25	.75	HW750
.875	1.38	.31	.75	HW875
1.000	1.50	.31	.75	HW1000
1.250	1.88	.38	.75	HW1250

Type Material & Heat Treat

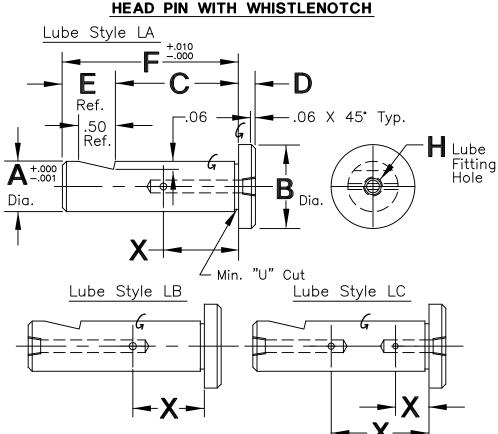
HWH12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.HWAPre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout.HWA1018 C.D.S.

HWC 1018 C.R.S.

Model Number	Development	Detail Sta	Indard	Pin A	ss'y
Head Pin with "A" Diameter – "C" Dimension "F" Length —			<u>)0</u> - <u>2.5</u>	<u>50</u> – <u>3.</u>	25

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

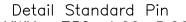
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHWH-12-64-82

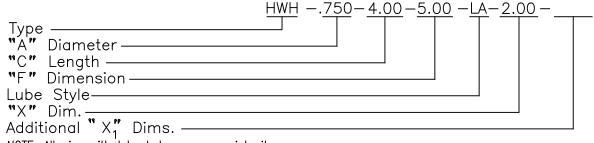


- Type Material & Heat Treat
- HWH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case. HWA Pre-heat treated Alloy, Rock "C" 28-32 Uniform Throughout.
- HWC

10^{-1}	18 C	R.S.			-									
10					Н									
	A Dia.	B Dia.	D	E	Style LA	Style LB	Style LC							
	.375	.62	.18	.62	5/32 Drive	5/32 Drive	5/32 Drive							
	.438	.88	.18	.62	5/32 Drive	5/32 Drive	5/32 Drive							
	.500	1.00	.25	.75	1/4–28 ST.	5/32 Drive	5/32 Drive							
	.625	1.12	.25	.75	1/8–27 NPT.	1/4–28 ST.	1/4–28 ST.							
	.750	1.25	.25	.75	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.							
	.875	1.38	.31	.75	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.							
	1.000	1.50	.31	.75	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.							
	1.250	1.88	.38	.75	1/8–27 NPT.	1/8–27 NPT.	1/8–27 NPT.							

Model Number Development

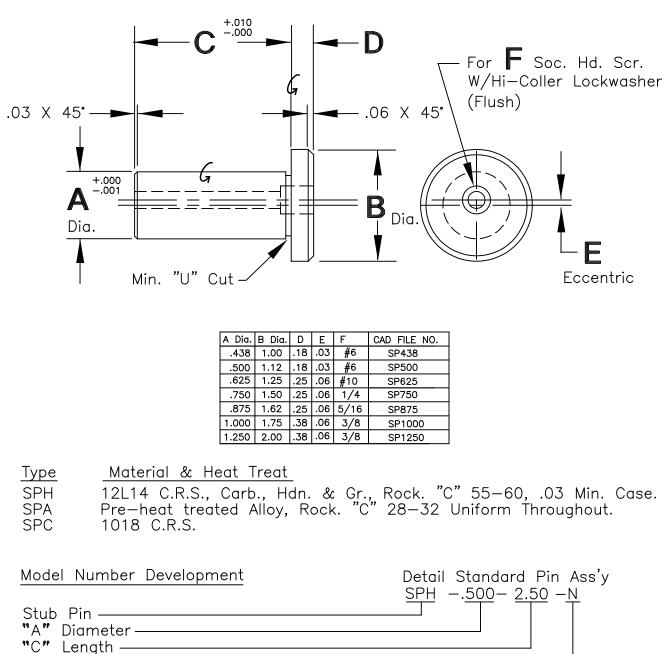




NOTE: All pins with lube holes are "special, items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHWH-20-100-130-LA-50

<u>STUB PIN</u> Type SPH, SPA & SPC

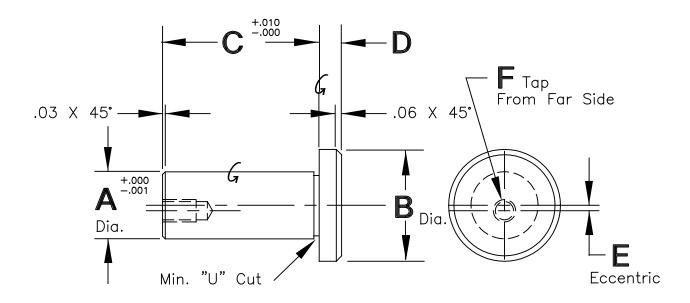


(Special option non-eccentric screw location)-

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSPH-12-64-N

<u>STUB PIN</u> Type TSH, TSA & TSC



A Dia.	B Dia.	D	E	F	CAD FILE NO.				
.438	1.00	.18	.03	#10-32x1/2	TS438				
.500	1.12	.18	.03	#10-32x1/2	TS500				
.625	1.25	.25	.06	1/4-20x5/8	TS625				
.750	1.50	.25	.06	5/16-18x5/8	TS750				
.875	1.62	.25	.06	5/16-18x5/8	TS875				
1.000	1.75	.38	.06	5/16-18x5/8	TS1000				
1.250	2.00	.38	.06	3/8-16x3/4	TS1250				

Type Material & Heat Treat

TSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55–60, .03 Min. Case. TSA Pre-heat treated Alloy, Rock. "C" 28–32 Uniform Throughout.

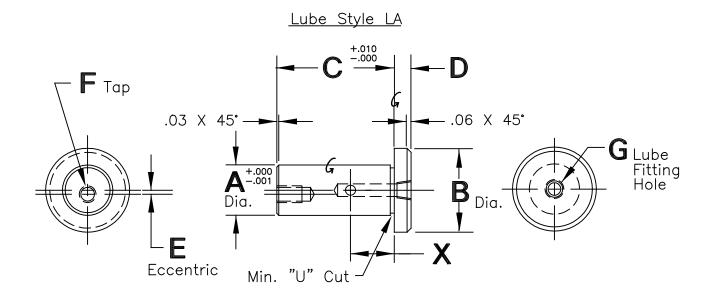
TSC 1018 C.R.S.

Model Number Development	Detail Standard Pin Ass'y
	<u>TSH</u> <u>500</u> - <u>2.50</u> - <u>N</u>
Stub Pin ————	
"A" Diameter —	
"C" Length —	
(Special option non-eccentric tapped	hole location)

NOTE: Standard lengths for diameters .50 and under are from 1.00" to 3.00" in .25" increments, and standard lengths for diameters .62 and over are from 3.00" to 6.00" in .50" increments. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTSH-12-64-N

STUB PIN



A Dia.	B Dia.	D	Е	F	G
.438	1.00	.18	.03	#10-32x1/2	1/4-28 ST
.500	1.12	.18	.03	#10-32x1/2	1/4-28 ST
.625	1.25	.25	.06	1/4-20x5/8	1/4-28 ST
.750	1.50	.25	.06	5/16-18x5/8	1/8-27 NPT
.875	1.62	.25	.06	5/16-18x5/8	1/8-27 NPT
1.000	1.75	.38	.06	5/16-18x5/8	1/8-27 NPT
1.250	2.00	.38	.06	3/8-16x3/4	1/8-27 NPT

Type Material & Heat Treat

TSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock "C" 55-60, .03 Min. Case. TSA Pre-heat treated Alloy,Rock. "C" 28-32 Uniform Throughout. TSC 1018 C.R.S.

Model Number Development	Detail Standard Stub Pin
Type "A" Diameter "C" Length Lube Style "X" Dim Additional "X" Dims (Special option non-eccentric	

NOTE: All pins with lube holes are "special" items

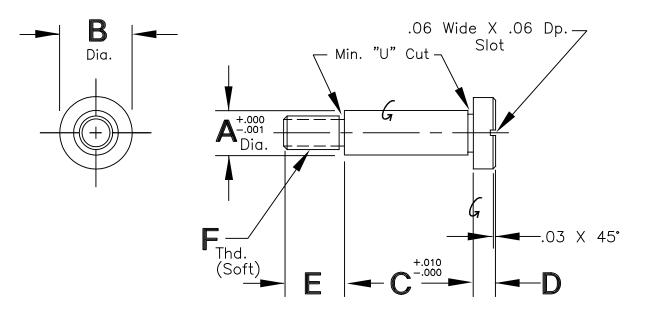
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTSH-20-100-LA-50-N

SECTION D

SHOULDER SCREWS

LIGHT DUTY SHOULDER SCREW

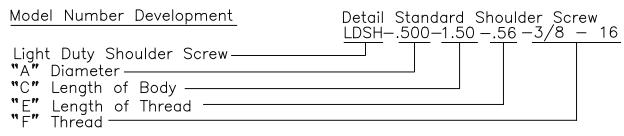
Type LDSH, LDSA & LDSC (COARSE THREAD)



				*	C Ler	ngth	_	_		* E Length						
A Dia.	B Dia.	.50	.75	1.00	1.25	1.50	1.75	2.00	D	.44	.56	.68	.81	.94	F	CAD FIL NO.
.312	.50	Х	Х	Х					.12	Х	Х				1/4–20	LDS312
.375	.68		Х	Х	Х				.18		Х	Х			5/16-18	LDS375
.438	.75		Х		Х				.18			Х	Х		5/16-18	LDS438
.500	.81			Х	Х	Х			.25			Х	Х		3/8-16	LDS500
.625	.94					Х		X	.25				Х	X	1/2-13	LDS625

<u>Type</u> <u>Material & Heat Treat</u>

LDSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. LDSA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. LDSC 1018 C.R.S.



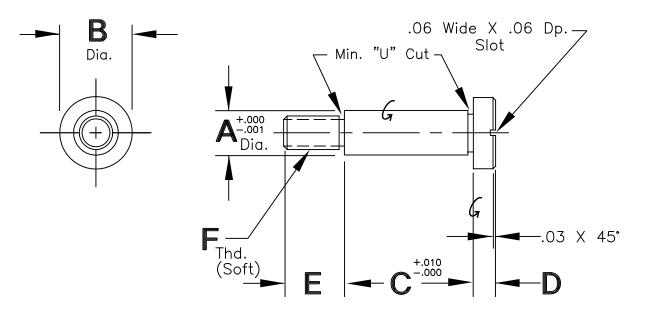
*

NOTE: Lengths indicated by " χ " in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MLDSH-12-38-14-M10-1.5

LIGHT DUTY SHOULDER SCREW

Type LFSH, LFSA & LFSC (FINE THREAD)



				*	C Ler	ngth	_	_			* E L	.ength				
A Dia.	B Dia.	.50	.75	1.00	1.25	1.50	1.75	2.00	D	.44	.56	.68	.81	.94	F	CAD FIL NO.
.312	.50	Х	Х	Х					.12	Х	Х				1/4–28	LFS312
.375	.68		Х	Х	Х				.18		Х	Х			5/16-24	LFS375
.438	.75		Х		Х				.18			Х	Х		5/16-24	LFS438
.500	.81			Х	Х	Х			.25			Х	Х		3/8–24	LFS500
.625	.94					Х		Х	.25				Х	Х	1/2-20	LFS625

<u>Type</u> <u>Material & Heat Treat</u>

LFSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case. LFSA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout. LFSC 1018 C.R.S.

Model Number Development	Detail Standard Shoulder Screw LFSH500-1.5056 -3/8 - 24
Light Duty Shoulder Screw "A" Diameter "C" Length of Body "E" Length of Thread "F" Thread	

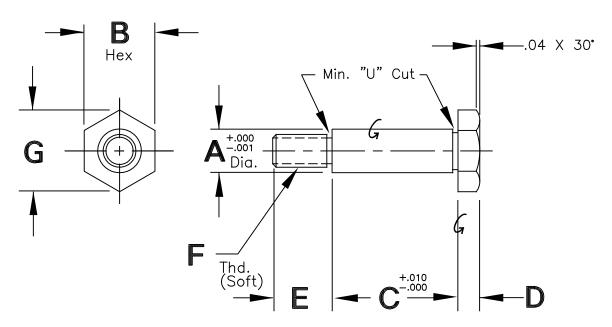
*

NOTE: Lengths indicated by " χ " in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MLFSH-12-38-14-M10-1.25

HEX HEAD SHOULDER SCREWS

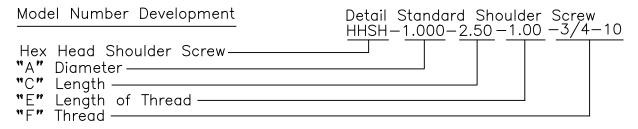
Type HHSH, HHSA & HHSC (COARSE THREAD)



		* C Length								* E Length							
A Dia.	B Hex	1.00	1.50	2.00	3.00	4.00	5.00	6.00	D	.56	.94	1.44	1.94	2.44	F	G	CAD FILE NO.
.625	.88	х	Х	Х					.25	Х	Х				1/2-13	1.01	HHS625
.750	1.00	Х	Х	Х					.25	Х	Х				5/8–11	1.15	HHS750
.875	1.12	Х	Х	Х	Х				.25		Х	Х			3/4-10	1.30	HHS875
1.000	1.25		Х	Х	Х				.31		Х	Х			3/4-10	1.44	HHS1000
1.250	1.50		Х	Х	Х	Х			.31		Х	Х			7/8–9	1.73	HHS1250
1.500	2.00			Х	Х		X		.38			Х	Х		1 1/8–7	2.31	HHS1500
1.750	2.25				Х	Х		Х	.38			Х		Х	1 3/8-6	2.60	HHS1750
2.000	2.50					Х	Х	Х	.50			Х		Х	1 1/2-6	2.89	HHS2000

Type <u>Material & Heat Treat</u>

HHSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
HHSA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout.
HHSC 1018 C.R.S.

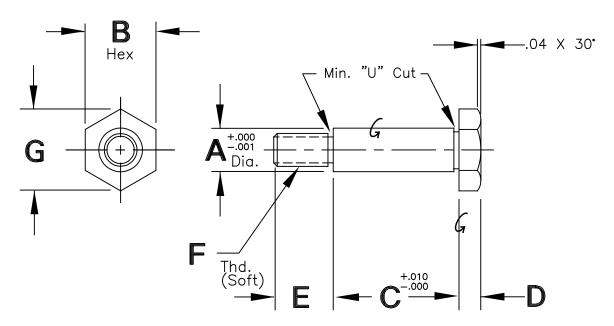


*

NOTE: Lengths indicated by "X" in chart above are standard.Other lengths may be ordered as "special" items. To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHHSH-25-64-25-M18-2.5

HEX HEAD SHOULDER SCREWS

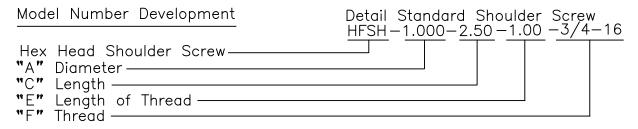
Type HFSH, HFSA & HFSC (FINE THREAD)



				*	C Ler	ngth	-	-			* E L	ength					
A Dia.	B Hex	1.00	1.50	2.00	3.00	4.00	5.00	6.00	D	.56	.94	1.44	1.94	2.44	F	G	CAD FILE NO.
.625	.88	Х	Х	Х					.25	Х	х				1/2-20	1.01	HFS625
.750	1.00	Х	Х	Х					.25	Х	Х				5/8–18	1.15	HFS750
.875	1.12	Х	Х	Х	Х				.25		Х	Х			3/4–16	1.30	HFS875
1.000	1.25		Х	Х	Х				.31		X	Х			3/4–16	1.44	HFS1000
1.250	1.50		Х	Х	Х	Х			.31		Х	Х			7/8–14	1.73	HFS1250
1.500	2.00			Х	Х		Х		.38			Х	Х		1 1/8-12	2.31	HFS1500
1.750	2.25				Х	Х		Х	.38			Х		Х	1 3/8-12	2.60	HFS1750
2.000	2.50					Х	X	X	.50			Х		Х	1 1/2-12	2.89	HFS2000

Type <u>Material & Heat Treat</u>

HFSH 12L14 C.R.S., Carb., Hdn. & Gr., Rock. "C" 55-60, .03 Min. Case.
HFSA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout.
HFSC 1018 C.R.S.



*

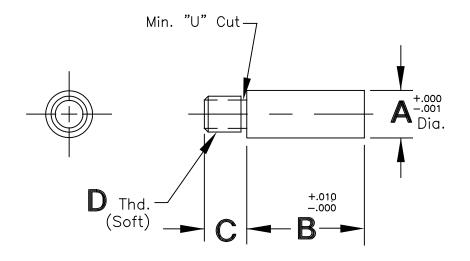
NOTE: Lengths indicated by "X" in chart above are standard.Other lengths may be ordered as "special" items. To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHFSH-25-64-25-M18-1.5

Lube Style LB		Lube	e Style LA	-		
						1
		.04 Min. "U" Cut –			► B Hex	
Lube Style LC		Dia.		Ref.		J
	F Thd.		+.010 000 C	- A - D	¥ H	Lube Fitting Hole
A B D H	F	-	G Style I A	Н]
Dia. Hex D нн .625 .88 .25	SH,HHSA & HHSC 1/2-13	HFSH,HFSA & HFSC 1/2-20	G Style LA 1.01 1/8-27 NPT	Style LB 1/4-28 ST	Style LC 1/4-28 ST	-
.750 1.00 .25	5/8–11	5/8–18	1.15 1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	-
.875 1.12 .25 1.000 1.25 .31	3/4-10	3/4-16	1.30 1/8-27 NPT		1/8-27 NPT 1/8-27 NPT	-
1.250 1.50 .31	3/4-10 7/8-9	3/4-16 7/8-14	1.44 1/8-27 NPT 1.73 1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	-
1.500 2.00 .38	1 1/8-7	1 1/8-12	2.31 1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	1
1.750 2.25 .38	1 3/8-6	1 3/8-12	2.60 1/8-27 NPT	1/8-27 NPT	1/8-27 NPT	-
2.000 2.50 .50	1 1/2-6	1 1/2-12	2.89 1/8-27 NPT	1/8-27 NPT	1/8-27 NPT]
<u>Туре</u>	<u>Material &</u>	<u>Heat Treat</u>				
HHSH & HFSH 1	2L14 C.R.S	S., Carb., Hdr	n.& Gr., Roc	k."C" 55-	-60, .03 I	Min. Case.
HHSA & HFSA F	^o re-heat tr	eated Alloy,	Rock. "C" 28	3—32 Unit	form Thro	uahout.
	018 C.R.S.			02 0111		agneat
	010 0.11.3.					
Model Number Dev		HHSH-1.00	lard Shoulde 0-4.00-1.00	r Screw)—3/4—1	6-LA-2.	00 —
Type "A" Diameter						
"Á" Diameter ——						
"C" Length ———						
"E" Lenath of Thr	ead					
NEP Throad						
Lube Style						
11 1 11						1
Additional "X" Dim	າຣ.——					
NOTE: All pins with lube ho	les are special	items				
To order this product			model number	and millime	ters for dim	iensions.
Example: MHHSH-25-	100-25-M18	-2.5-LA-50				

HEX HEAD SHOULDER SCREWS

STANDOFF

Type STAH, STAA, STAT & STAC



A	RECOMMENDE	D D THREAD	A	RECOMMENDE	D D THREAD
Dia.	COARSE	FINE	Dia.	COARSE	FINE
.312	1/4–20	1/4–28	.875	3/4–10	3/4–16
.375	5/16–18	5/16-24	1.000	3/4–10	3/4-16
.438	5/16-18	5/16-24	1.250	7/8–9	7/8–14
.500	3/8–16	3/8-24	1.500	1 1/8–7	1 1/8–12
.625	1/2–13	1/2-20	1.750	1 3/8-6	1 3/8-12
.750	5/8–11	5/8–18	2.000	1 1/2-6	1 1/2-12

<u>Type</u> <u>Material & Heat Treat</u>

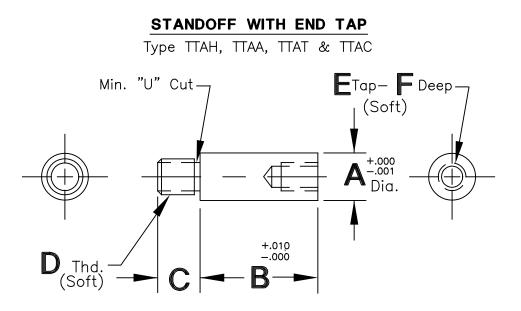
STAH12L14 C.R.S., Carb., Hdn.& Gr., Rock. "C" 55-60, .03 Min. Case.STAATurned, Ground & Polished, Rock. "C" 28-32 Uniform ThroughoutSTAT1045 Turned, Ground & Polished.

STAC 1018 C.R.S.

Model Number Development	Detail Standard Standoff STAH-1.000-4.00-1.00-3/4-16
Type "A" Diameter "B" Length "C" Length of Thread "D" Thread Size	

NOTE: All standoffs are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSTAH-25-100-25-M18-2.5



Α	RECOMMENDE	D D THREAD	RECOMMENDE	ED E THREAD
Dia.	COARSE	FINE	COARSE	FINE
.312	1/4-20	1/4–28	# 8–32	# 8–36
.375	5/16-18	5/16-24	# 10—24	# 10 - 32
.438	5/16-18	5/16-24	# 10—24	# 10 - 32
.500	3/8–16	3/8–24	5/16–18	5/16-24
.625	1/2-13	1/2-20	1/4–20	1/4-28
.750	5/8-11	5/8-18	3/8–16	3/8-24
.875	3/4-10	3/4–16	3/8–16	3/8–24
1.000	3/4-10	3/4–16	1/2-13	1/2-20
1.250	7/8–9	7/8–14	1/2-13	1/2-20
1.500	1 1/8–7	1 1/8–12	5/8–11	5/8–18
1.750	1 3/8-6	1 3/8-12	5/8-11	5/8-18
2.000	1 1/2-6	1 1/2-12	3/4–10	3/4-16

<u>Type Material & Heat Treat</u>

TTAH	12L14 C.R.S., Carb., Hdn.& Gr., Rock."C" 55-60, .03 Min. Case.
TTAA	Turned, Ground & Polished, Rock."C" 28-32 Uniform Throughout.
TTAT	1045 Turned, Ground & Polished.
TTAC	1018 C.R.S.

 Model Number Development
 Detail Standard Standoff with End Tap

 TTAH -1.000-4.00-1.00-3/4-16-1/2-13-.62

 Type

 "A" Diameter

 "B" Length

 "C" Length of Thread

 "D" Thread Size

 "E" Tap Size

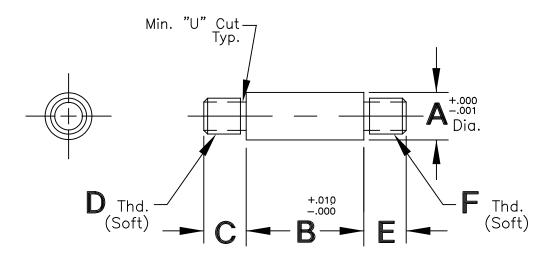
 "F" Tap Depth

NOTE: All standoffs are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTTAH-25-100-25-M18-2.5-M12-1.75-18

DOUBLE THREADED STANDOFFS

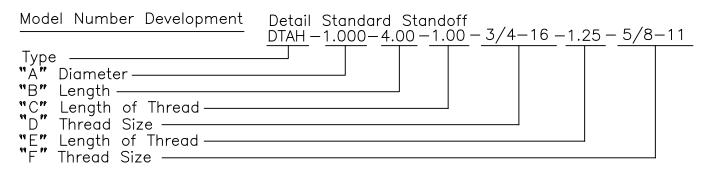
Type DTAH, DTAA, DTAT & DTAC



A	D TH	READ	A	D THREAD			
Dia.	COARSE THREAD	FINE THREAD	Dia.	COARSE THREAD	FINE THREAD		
.312	1/4–20	1/4–28	.875	3/4-10	3/4–16		
.375	5/16–18	5/16-24	1.000	3/4-10	3/4–16		
.438	5/16-18	5/16-24	1.250	7/8–9	7/8–14		
.500	3/8–16	3/8–24	1.500	1 1/8–7	1 1/8–12		
.625	1/2–13	1/2-20	1.750	1 3/8-6	1 3/8-12		
.750	5/8–11	5/8–18	2.000	1 1/2-6	1 1/2-12		

<u>Type</u> <u>Material & Heat Treat</u>

DTAH 12L14 C.R.S., Carb., Hdn.& Gr., Rock. "C" 55-60, .03 Min. Case.
DTAA Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
DTAT 1045 Turned, Ground & Polished.
DTAC 1018 C.R.S.

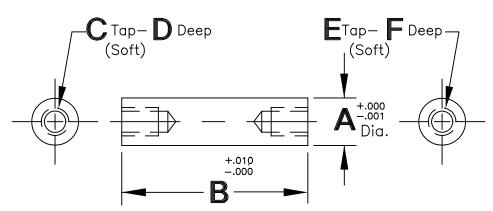


NOTE: All standoffs are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDTAH-25-100-25-M20-2.5-32-M18-2.5

STANDOFF WITH BOTH ENDS TAPPED

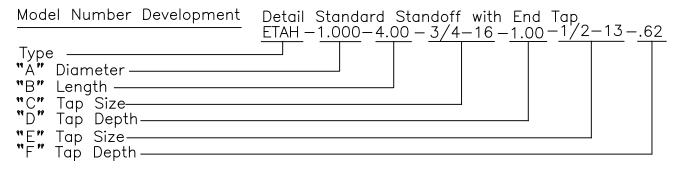
Type ETAH, ETAA, ETAT & ETAC



A	RECOMMENDE	DC&ETAP	RECOMMENDED
Dia.	COARSE	FINE	D & F DEPTH
.312	# 8–32	# 8–36	.38
.375	# 10–24	# 10 - 32	.38
.438	# 10–24	# 10 - 32	.38
.500	5/16–18	5/16-24	.50
.625	1/4–20	1/4-28	.50
.750	3/8–16	3/8–24	.62
.875	3/8–16	3/8–24	.62
1.000	1/2-13	1/2-20	.75
1.250	1/2-13	1/2-20	.75
1.500	5/8–11	5/8–18	1.00
1.750	5/8–11	5/8–18	1.00
2.000	3/4–10	3/4–16	1.25

Type <u>Material & Heat Treat</u>

ETAH 12L14 C.R.S., Carb., Hdn.& Gr., Rock. "C" 55-60, .03 Min. Case.
ETAA Turned, Ground & Polished, Rock. "C" 28-32 Uniform Throughout.
ETAT 1045 Turned, Ground & Polished.
ETAC 1018 C.R.S.



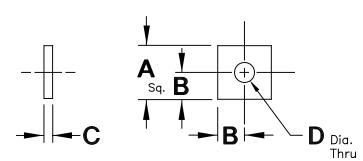
NOTE: All standoffs are "special" items

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: METAH-25-100-M20-2.5-25-M12-1.75-18

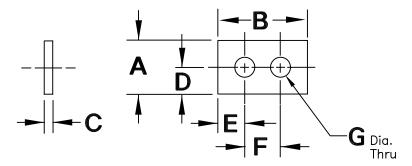
SECTION E

TOOLING & MISC.

KEEPERS

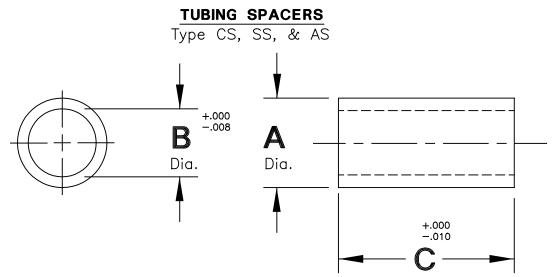


KEEPER No.	Α	В	С	D	CAD FILE NO.
K—1	.50	.25	.12	.22	K1
K-2	.75	.38	.12	.28	K2
K-3	1.00	.50	.12	.34	K3
K-4	.75	.38	.25	.28	K4
K-5	1.00	.50	.25	.34	K5
K-6	1.25	.62	.25	.41	K6
K-7	1.50	.75	.25	.53	K7
K-8	1.00	.50	.25	.41	K8
К-9	1.00	.50	.12	.28	К9



KEEPER No.	A	В	С	D	E	F	G	CAD FILE NO.
2 K—1	,75	1.25	.12	.38	,38	.50	.28	2K1
2K-2	1.00	1.50	.12	.50	.38	.75	.34	2K2
2K-3	1.25	2.00	.25	.62	.50	1.00	.41	2K3
2K-4	1.50	2.50	.25	.75	.62	1.25	.53	2K4
2K-5	.75	1.25	.25	.38	.38	.50	.28	2K5
2K-6	1.00	1.50	.25	.50	.38	,75	.34	2K6
2K-7	.75	1.25	.12	.31	.31	.62	,34	2K7
2K-8	1.25	2.00	.25	.44	.50	1.00	,41	2K8
2K-9	1.50	2.50	.25	.50	.50	1.50	.53	2K9
2K-10	.62	1.25	.12	.31	.31	.62	,28	2K10
2 K—11	1.00	1.75	.25	.50	.50	.75	.41	2K11
2K-12	1.25	2.00	.25	.82	.44	1.12	,34	2K12
2K-13	1.50	2.50	.25	.50	.50	1.50	,41	2K13
2K-14	.62	1.25	.12	.31	.25	.75	,28	2K14
2K-15	.75	1.25	.12	.38	.25	.75	.28	2K15
2K-16	1.00	1.50	.12	.50	.50	.50	.28	2K16
2K-17	1.00	1.75	.12	.50	.50	.75	,41	2K17

Material: 1018 C.R.S.



Material:

Type CS - Welded D.O.M. 1020/1026 Steel or Cold Drawn Seamless

Type SS - Stainless Steel Type 304 or 316

Type AS - Aluminum 2024, 3003, 5052, 5086, 6061 or 6063

A Dia.	B Dia.								
.38	.209	.88	.500	1.25	.562	1.50	1.260	1.88	1.313
.38	.277	.88	.562	1.25	.687	1.62	.875	1.88	1.562
.50	.232	.88	.635	1.25	.812	1.62	1.000	2.00	1.125
.50	.282	.88	.777	1.25	.906	1.62	1.063	2.00	1.312
.50	.334	1.00	.562	1.25	1.010	1.62	1.281	2.00	1.524
.50	.384	1.00	.640	1.38	.937	1.62	1.555	2.25	1.124
.62	.385	1.00	.760	1.38	1.031	1.75	.875	2.25	1.375
.62	.459	1.00	.902	1.38	1.277	1.75	1.000	2.25	1.562
.62	.527	1.12	.563	1.50	.750	1.75	1.125	2.50	1.000
.75	.482	1.12	.687	1.50	.812	1.75	1.532	2.50	1.250
.75	.510	1.12	.781	1.50	.938	1.88	1.000	2.50	1.375
.75	.634	1.12	1.027	1.50	1.062	1.88	1.125	2.50	1.625

Finish:

Finish – (N, B or A) -

 N = None

 B = Black Oxide (Type CS Only)

 A = Anodized (Type AS Only)

 Model Number Development
 Detail Standard Tubing Spacer

 CS - 1.12 - .813 - 3.00 - N

 Tubing Spacer - (CS, SS or AS)

 "A" Dia. (0.D.)

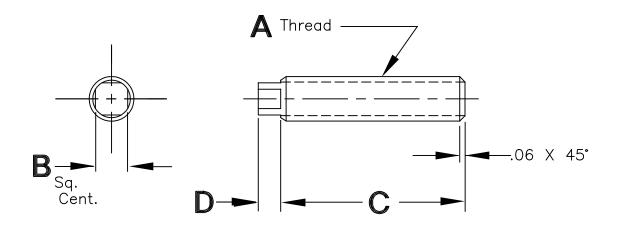
 "B" Dia. (I.D.)

 "C" Length

Note: Other O.D./I.D. size combinations may be ordered as "special" items.

THREADED ROD

Type TR



					* C	Leng	th						
A Thread	В	1.50	2.00	2.50		4.00		6.00	7.00	8.00	D	CAD FILE	NO.
5/16-18	.18	Х	Х	Х	X						.18	TR516	
5/16-24	.18	Х	Х	Х	Х						.18	TR516	
3/8-16	.25	Х	Х	Х	Х	Х					.25	TR38	
3/8-24	.25	Х	Х	Х	Х	Х					.25	TR38	
7/16-14	.31		Х	Х	X	Х					.25	TR716	
7/16-20	.31		Х	Х	Х	Х					.25	TR716	
1/2-13	.38		Х	Х	X	Х	Х				.31	TR12	
1/2-20	.38		Х	Х	Х	Х	Х				.31	TR12	
5/8-11	.50				X	Х	Х	Х			.38	TR58	
5/8–18	.50				X	Х	Х	X			.38	TR58	
3/4-10	.62				X	Х	Х	Х			.50	TR34	
3/4-16	.62				X	Х	Х	Х			.50	TR34	
1-8	.75					Х	Х	Х	Х		.50	TR1	
1-14	.75					Х	Х	Х	Х		.50	TR1	
1 1/4-7	1.00					Х	Х	Х	Х	Х	.50	TR114	
1 1/4-12	1.00					Х	Х	Х	Х	Х	.50	TR114	

Material: Alloy Steel (Stud Stock) ASTM Spec. A-193 Heat Treat: Brinell 275-310 Stress Relieved Finish: Black Oxide

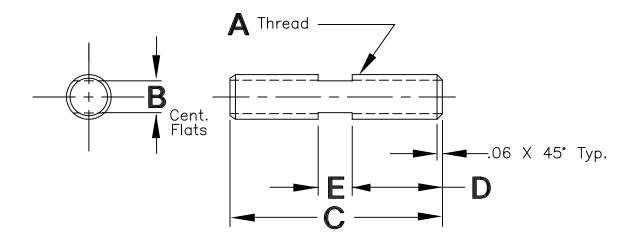
Model Number Development	Detail Standard Threaded Rod
T I I I D I	<u>TR-5/8-11</u> -4.00
"A" Thread ————————————————————————————————————	
"C" Thread Length	

NOTE: Lengths indicated by " χ " in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTR-18-2.5-100

THREADED ROD

Type TRF



			k									
A Thread	В	1.50	2.00	2.50	3.00	4.00	5.00	6.00	7.00	8.00	E	CAD FILE NO.
5/16-18	.18	X	Х	Х	Х						.18	TRF516
5/16-24	.18	X	Х	Х	Х						.18	TRF516
3/8-16	.25	X	X	X	Х	Х					.25	TRF38
3/8-24	.25	X	X	Х	Х	Х					.25	TRF38
7/16-14	.31		X	X	Х	Х					.25	TRF716
7/16-20	.31		X	Х	Х	Х					.25	TRF716
1/2-13	.38		X	Х	Х	Х	Х				.31	TRF12
1/2-20	.38		X	Х	Х	Х	Х				.31	TRF12
5/8-11	.50				Х	Х	Х	Х			.38	TRF58
5/8-18	.50				Х	Х	Х	Х			.38	TRF58
3/4-10	.62				Х	Х	Х	Х			.50	TRF34
3/4-16	.62				Х	Х	Х	Х			.50	TRF34
1-8	.75					Х	Х	Х	Х		.50	TRF1
1-14	.75					Х	Х	Х	Х		.50	TRF1
1 1/4-7	1.00					Х	Х	Х	Х	Х	.50	TRF114
1 1/4-12	1.00					Х	Х	Х	Х	X	.50	TRF114

Material: Alloy Steel (Stud Stock) ASTM Spec. A-193 Heat Treat: Brinell 275-310 Stress Relieved Finish: Black Oxide

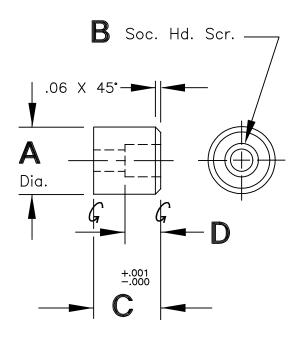
Model Number Develo	pment	dard Threaded 11—4.00—2.31	Rod
Threaded Rod ——— "A" Thread ——— "C" Thread Length "D" Dimension (Slot	will be center		

NOTE: Lengths indicated by " χ " in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTRF-M18-2.5-100-58

STOP PADS

Type SP



				*						
A Dia.	В	.375	.500	.625	.750	1.000	1.250	1.500	D	CAD FILE NO.
.50	No.10	X	X						.27	SP150
.62	No.10	X	X	Х	X	X	Х	Х	.27	SP162
.62	1/4		X	Х	X	X	Х	Х	.40	SP12562
.75	1/4		X	Х	X	X	X	Х	.40	SP175
.88	1/4	X	X						.28	SP12588
.88	5/16			Х	X	X	X	Х	.46	SP188
1.00	5/16				X	X	X	х	.46	SP1000
1.25	3/8				Х	X	X	х	.56	SP1125
1.50	1/2					X	X	Х	.80	SP1500
1.62	1/2					X	X	х	.80	SP1625

Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. Finish: Black Oxide

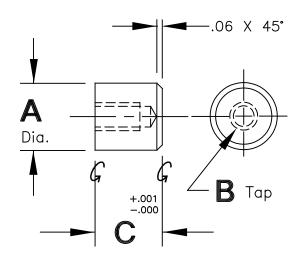
Mode	el Number Development	Detail Standard Stop Pad
		<u>SP626254025</u>
"A"	Pad ————————————————————————————————————	
	Length —	
	Depth Screw Size	

NOTE: Lengths indicated by "X" in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSP-16-16.00-10-6

STOP PADS

Type TP



				* C				
A Dia.	В Тар	.500	.625	.750	1.000	1.250	1.500	CAD FILE NO.
.50	#10-32 X 1/4	Х	Х	Х				TP50
.62	1/4-20 X 3/8		Х	Х	Х			TP62
.75	5/16-18 X 1/2			Х	х	Х		TP75
.88	1/4-20 X 1/2			Х	Х	Х		TP88
.88	5/16-18 X 1/2			Х	х	Х		TP88
1.00	5/16-18 X 1/2				Х	Х	Х	TP100
1.25	3/8-16 X 5/8				х	х	х	TP125
1.50	1/2-13 X 3/4				Х	Х	Х	TP150
1.62	1/2-13 X 3/4				х	Х	х	TP162

Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. (Threads Soft) Finish: Black Oxide

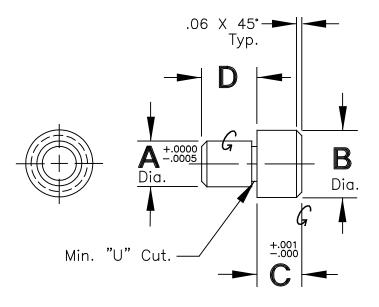
Model Number Development	Detail Standard Stop Pad							
	<u>TP62750-1/4-20 x 3/8</u>							
Stop Pad ———————————————————————————————————								
"C" Length ————— "B" Tap x Depth ————								

NOTE: Lengths indicated by "X" in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: $MTP-16-20-M6-1\times10$

REST PADS

Type RP (Press Fit)



				*						
A Dia.	B Dia.	.250	.375	.500	.625	.750	1.000	1.250	D	CAD FILE NO.
.251	.50	Х	Х	Х					.47	RP50
.376	.62	Х	Х	Х	Х				.60	RP62
.501	.75		Х	Х	Х	Х			.60	RP75
.626	1.00		Х	Х	Х	Х			.72	RP100
.751	1.25			Х		Х	X		.85	RP125
1.001	1.50					Х	X	X	.98	RP150

Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. Finish: Black Oxide

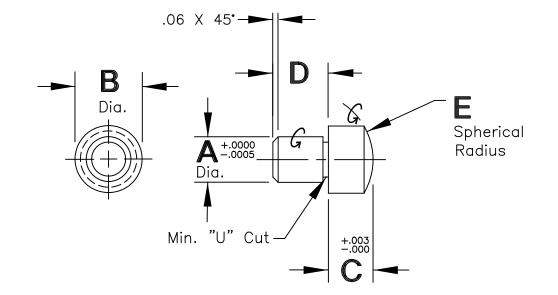
Model Nur	nber Development	Detail Standard Rest Pad
		<u>RP</u> <u>751</u> <u>750</u>
Rest Pad		
"A" Diam		
"C" Lengt	th	

NOTE: Lengths indicated by "X" in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: ${\sf MRP-20.00-20.00}$

REST PADS

Type RPS (Press Fit)



			_	*	C Ler		_				
A Dia.	B Dia.	.250	.375	.500	.625	.750	1.000	1.250	D	E	CAD FILE NO.
.251	.50	Х	Х	Х					.47	.50	RPS50
.376	.62	Х	X	Х	Х				.60	.62	RPS62
.501	.75		Х	Х	Х	X			.60	.75	RPS75
.626	1.00		Х	Х	Х	X			.72	1.00	RPS100
.751	1.25			Х		X	Х		.85	1.25	RPS125
1.001	1.50					X	Х	Х	.98	1.50	RPS150

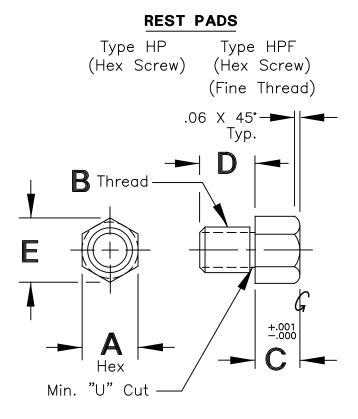
Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. Finish: Black Oxide

Model Number Development	Detail Standard Rest Pac
	<u>RPS751750</u>
Rest Pad ————	
"A" Digmeter	
"C" Length	

*

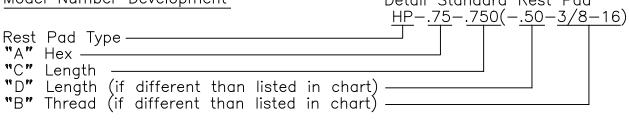
NOTE: Lengths indicated by "X" in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MRPS-20.00-20.00



A Hex	B Thread	.250	.375	.500	.625	.750	1.000	1.250	D	Е	CAD FILE NO.
.38	1/4-20	Х	Х	Х	Х				.35	.43	HP38
.50	3/8–16		Х	Х	Х	Х			.47	.58	HP50
.62	1/2-13		Х	Х	Х	Х			.60	.72	HP62
.75	1/2-13			Х		Х	X		.72	.86	HP75
1.00	5/8–11					Х	X	Х	.98	1.15	HP100
.38	1/4–28	Х	Х	Х	Х				.35	.43	HP38
.50	3/8–24		Х	Х	Х	Х			.47	.58	HP50
.62	1/2-20		Х	Х	Х	Х			.60	.72	HP62
.75	1/2-20			Х		Х	X		.72	.86	HP75
1.00	5/8-18					Х	X	Х	.98	1.15	HP100

Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. (Threads Soft) Finish: Black Oxide Model Number Development Detail Standard Rest Pad



NOTE: Lengths indicated by "X" in chart above are standard. Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHP-20-20.00-12-M10-1.5

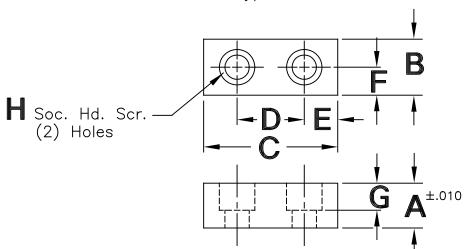
REST PADS
Type HPS Type HPFS
(Hex Screw) (Hex Screw) (Fine Thread)
.06 X 45° - Typ.
B Thread F Spherical
- A + .003000
Min. "U" Cut —/
* C Length
A Hex B Thread .250 .375 .500 .625 .750 1.000 1.250 D E F CAD FILE NO. .38 1/4-20 X X X X .35 .43 .38 HPS38
.50 3/8-16 X X X X47 .58 .50 HPS50
.62 1/2-13 X X X X Image: A state of the
1.00 5/8-11 X X X .98 1.15 2.00 HPS100
.38 1/4-28 X X X X .35 .43 .38 HPS38 .50 3/8-24 X X X X .47 .58 .50 HPS50
.62 1/2-20 X X X X60 .72 .62 HPS62
.75 1/2-20 X X X .72 .86 2.00 HPS75 1.00 5/8-18 X X X .98 1.15 2.00 HPS100
Material: 12L14 C.R.S. Heat Treat: Carb. & Hdn., Rock. "C" 55-60, .03 Min. Case. (Threads Soft)
Finish: Black Oxide
Model Number DevelopmentDetail Standard Rest PadHPS75750(50-3/8-16)
Rest Pad Type
"A" Hex
"C" Length
"D" Lenath (if different than listed in chart) ——————————————————————————————————
"B" Thread (if different than listed in chart)
* NOTE: Lengths indicated by "X" in chart above are standard.Other lengths may be ordered as "special" items.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHPS-20-20.00-12-M10-1.5

STOP BLOCK

Type SBS

SEE PAGES F-2 & F-7 FOR SHIMS



Part No.	Α	В	C	D	E	F	G	H	CAD FILE NO.
SBS-101	.50	.62	1.25	.625	.31	.31	.36	.25	SBS101
SBS-102	.50	.62	1.50	.750	.38	.31	.36	.25	SBS102
SBS-103	.62	.62	1.50	.750	.38	.31	.44	.31	SBS103
SBS-104	.62	.62	2.00	1.250	.38	.31	.44	.31	SBS104
SBS-105	.62	.75	1.50	.750	.38	.38	.44	.31	SBS105
SBS-106	.62	1.00	1.62	1.000	.31	.50	.44	.31	SBS106
SBS-107	.62	1.00	2.38	1.625	.38	.50	.44	.38	SBS107
SBS-108	.75	.75	1.50	.750	.38	.38	.52	.31	SBS108
SBS-109	.75	1.00	2.00	1.000	.50	.50	.56	.38	SBS109
SBS-110	.75	1.00	2.38	1.625	.38	.50	.56	.38	SBS110
SBS-111	.75	1.00	6.00	4.000	1.00	.50	.56	.38	SBS111
SBS-112	.75	1.25	3.00	2.000	.50	.62	.56	.38	SBS112
SBS-113	1.00	1.00	1.81	1.187	.31	.50	.52	.31	SBS113
SBS-114	1.00	1.50	3.50	2.250	.62	.75	.62	.38	SBS114
SBS-115	1.25	1.25	2.18	1.437	.38	.62	.62	.38	SBS115

Material: 1018 C.R.S. Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case Finish: Black Oxide

 Model Number Development
 Detail Standard Stop Block

 (For Special Sizes)
 SBS-.62-1.00-2.38-1.625-.38-.50-.44-.38

 Stop Block
 "A" Dimension

 "A" Dimension
 "Immension

 "B" Dimension
 "Immension

 "C" Dimension
 "Immension

 "F" Dimension
 "Immension

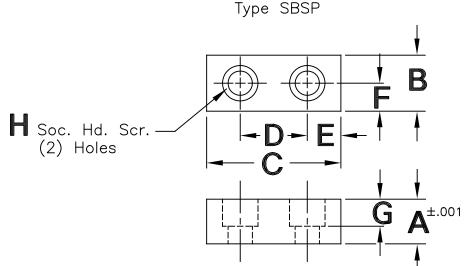
 "H" Soc. Hd. Scr.
 Immension

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBS-18-25-60-20-20-12-11-10

STOP BLOCK - PRECISION HEIGHT

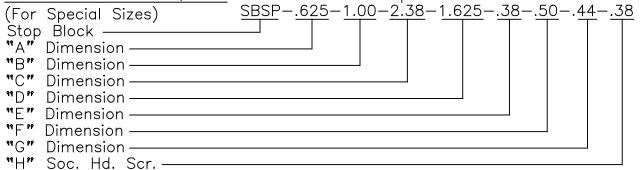
SEE PAGES F-2 & F-7 FOR SHIMS



Part No.	A	В	С	D	E	F	G	Н	CAD FILE NO.
SBSP-101	.500	.62	1.25	.625	.31	.31	.36	.25	SBS101
SBSP-102	.500	.62	1.50	.750	.38	.31	.36	.25	SBS102
SBSP-103	.625	.62	1.50	.750	.38	.31	.44	.31	SBS103
SBSP-104	.625	.62	2.00	1.250	.38	.31	.44	.31	SBS104
SBSP-105	.625	.75	1.50	.750	.38	.38	.44	.31	SBS105
SBSP-106	.625	1.00	1.62	1.000	.31	.50	.44	.31	SBS106
SBSP-107	.625	1.00	2.38	1.625	.38	.50	.44	.38	SBS107
SBSP-108	.750	.75	1.50	.750	.38	.38	.52	.31	SBS108
SBSP-109	.750	1.00	2.00	1.000	.50	.50	.56	.38	SBS109
SBSP-110	.750	1.00	2.38	1.625	.38	.50	.56	.38	SBS110
SBSP-111	.750	1.00	6.00	4.000	1.00	.50	.56	.38	SBS111
SBSP-112	.750	1.25	3.00	2.000	.50	.62	.56	.38	SBS112
SBSP-113	1.000	1.00	1.81	1.187	.31	.50	.52	.31	SBS113
SBSP-114	1.000	1.50	3.50	2.250	.62	.75	.62	.38	SBS114
SBSP-115	1.250	1.25	2.18	1.437	.38	.62	.62	.38	SBS115

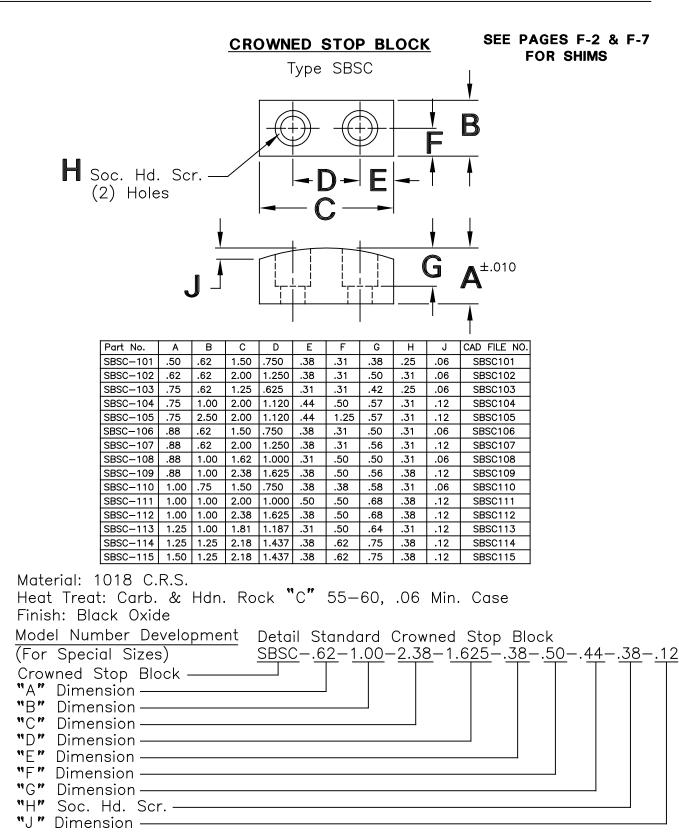
Material: 1018 C.R.S. Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case Finish: Black Oxide

Model Number Development Detail Standard Stop Block



NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items,using "Model Number Development" format.

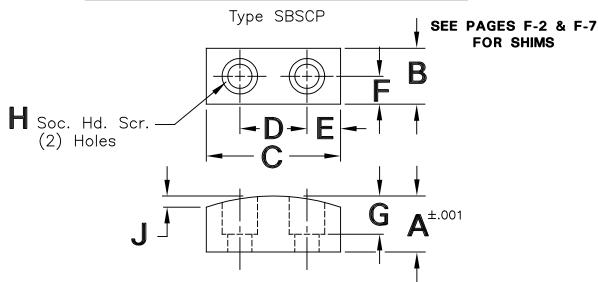
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBSP-18-25-60-20-20-12-10-10



NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBSC-18-25-60-20-20-12-10-10-3

CROWNED STOP BLOCK - PRECISION HEIGHT



Part No. CAD FILE NO. в С D G Н J Α Ε F SBSCP-101 .500 .62 1.50 .750 .38 .31 .38 .25 .06 SBSC101 SBSCP-102 .625 .62 2.00 1.250 .38 .50 .06 SBSC102 .31 .31 SBSCP-103 .750 .62 1.25 .625 .31 .31 .42 .25 .06 SBSC103 SBSCP-104 .750 1.00 SBSC104 2.00 1.120 .44 .50 .57 .31 .12 SBSCP-105 .750 2.50 2.00 .44 1.25 .57 .12 SBSC105 1.120 .31 SBSCP-106 .875 .31 .06 SBSC106 1.50 .750 .38 .50 .31 .62 SBSCP-107 .875 .62 2.00 1.250 .38 .31 .56 .31 .12 SBSC107 SBSCP-108 .875 .50 .06 SBSC108 1.00 1.62 1.000 .31 .50 .31 .38 SBSCP-109 .875 1.00 2.38 1.625 .50 .56 .38 .12 SBSC109 SBSCP-110 1.000 .75 1.50 .750 .38 .38 .58 .31 .06 SBSC110 SBSCP-111 1.000 1.00 2.00 1.000 .50 .50 .68 .38 .12 SBSC111 SBSCP-112 1.000 1.00 2.38 1.625 .38 .50 .68 .38 .12 SBSC112 SBSCP-113 1.250 1.00 1.81 1.187 .31 .50 .64 .31 .12 SBSC113 SBSCP-114 1.250 1.25 2.18 1.437 .38 .62 .75 .38 .12 SBSC114 SBSCP-115 1.500 1.25 2.18 1.437 .75 .38 SBSC115 .38 .62 .12

Material: 1018 C.R.S.

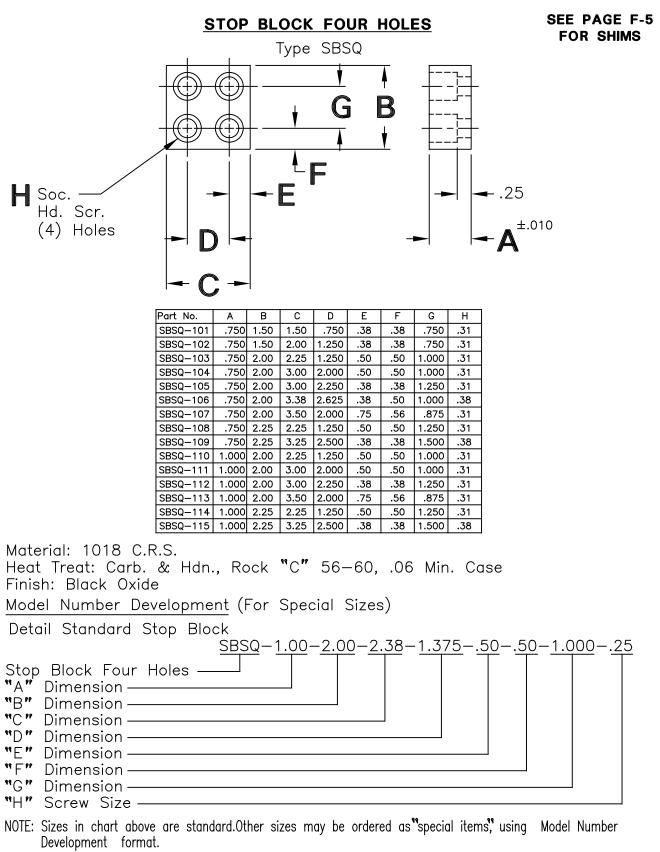
Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case Finish: Black Oxide

Model Number Development Detail Standard Crowned Stop Block

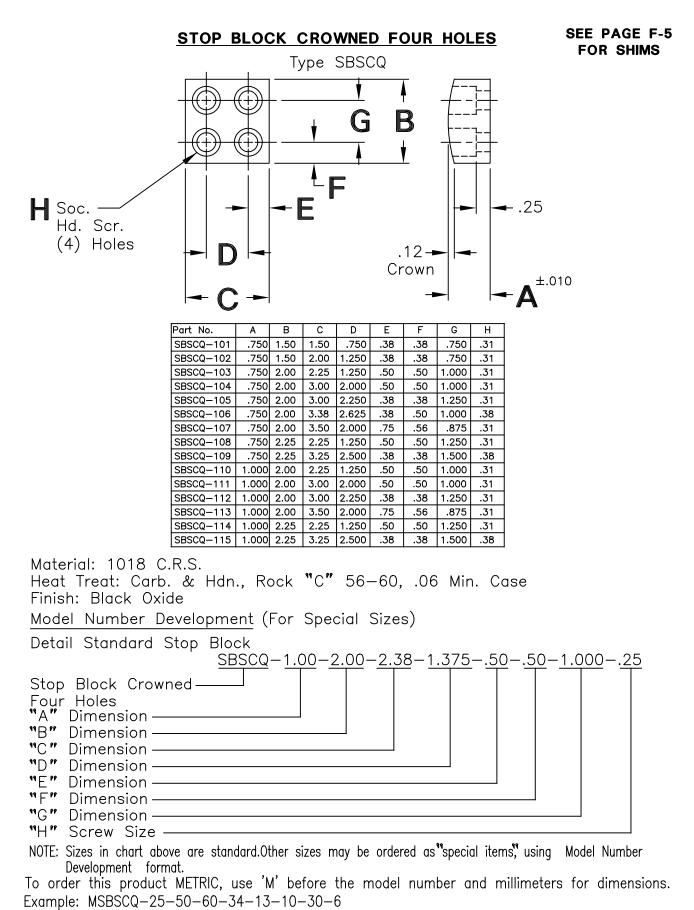
(For	Special Sizes)	$\underline{SBSCP} = .625 = 1.00 = 2.38 = 1.625 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = .50 = .44 = .38 = .50 = $	<u>.12</u>
Crov	ned Stop Block ——		
	Dimension ———		
` 'B″	Dimension ———		
**C **	Dimension ———		
[¶] D ^µ	Dimension ———		
` 'E "	Dimension ———		
* *F **	Dimension ———		
۳G	Dimension ———		
	Soc. Hd. Scr. ———		
99 J PP	Dimension ———		

NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBSCP-18-25-60-20-20-12-10-10-3



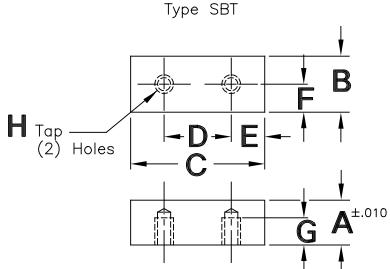
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBSQ-25-50-60-34-13-10-30-6



E-16

TAPPED STOP BLOCK

SEE PAGES F-2 & F-7 FOR SHIMS



Part No.	Α	В	С	D	E	F	G	Н	CAD FILE NO.
SBT-101	.50	.62	1.25	.625	.31	.31	THRU	1/4-20	SBT101
SBT-102	.62	.62	1.50	.750	.38	.31	.38	, 5/16–18	SBT102
SBT-103	.62	.62	2.00	1.250	.38	.31	.38	5/16-18	SBT103
SBT-104	.62	1.00	1.62	1.000	.31	.50	.38	5/16-18	SBT104
SBT-105	.62	1.00	2.38	1.625	.38	.50	THRU	3/8-16	SBT105
SBT-106	.75	.75	1.50	.750	.38	.38	.44	5/16-18	SBT106
SBT-107	.75	1.00	2.00	1.000	.50	.50	THRU	3/8-16	SBT107
SBT-108	.75	1.00	2.00	1.120	.44	.50	THRU	5/16-18	SBT108
SBT-109	.75	1.00	2.38	1.625	.38	.50	.44	3/8-16	SBT109
SBT-110	.75	2.50	2.00	1.120	.44	1.25	THRU	5/16-18	SBT110
SBT-111	.88	1.00	2.38	1.625	.38	.50	.56	3/8-16	SBT111
SBT-112	1.00	.75	1.50	.750	.38	.38	.50	5/16–18	SBT112
SBT-113	1.00	1.00	1.81	1.187	.31	.50	.50	5/16-18	SBT113
SBT-114	1.25	1.00	1.81	1.187	.31	.50	.50	5/16-18	SBT114
SBT-115	1.25	1.25	2.18	1.437	.38	.62	.62	3/8-16	SBT115

Material: 1018 C.R.S.

Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case, (Threads Soft) Finish: Black Oxide

Model Number Development Detail Standard Tapped Stop Block

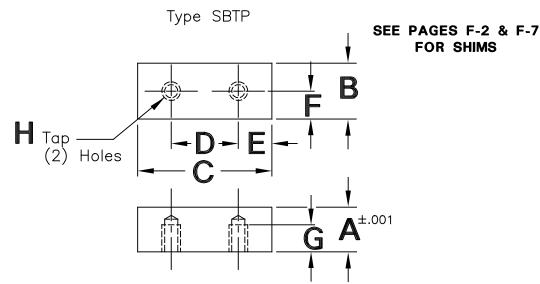


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBT-18-25-60-34-13-12-10-M10x1.5

TAPPED STOP BLOCK - PRECISION HEIGHT

FOR SHIMS



Part No.	Α	В	С	D	Е	F	G	Н	CAD FILE NO.
SBTP-101	.50	.62	1.25	.625	.31	.31	THRU	1/4–20	SBT101
SBTP-102	.62	.62	1.50	.750	.38	.31	.38	5/16-18	SBT102
SBTP-103	.62	.62	2.00	1.250	.38	.31	.38	5/16-18	SBT103
SBTP-104	.62	1.00	1.62	1.000	.31	.50	.38	5/16-18	SBT104
SBTP-105	.62	1.00	2.38	1.625	.38	.50	THRU	3/8–16	SBT105
SBTP-106	.75	.75	1.50	.750	.38	.38	.44	5/16–18	SBT106
SBTP-107	.75	1.00	2.00	1.000	.50	.50	THRU	3/8-16	SBT107
SBTP-108	.75	1.00	2.00	1.120	.44	.50	THRU	5/16–18	SBT108
SBTP-109	.75	1.00	2.38	1.625	.38	.50	.44	3/8–16	SBT109
SBTP-110	.75	2.50	2.00	1.120	.44	1.25	THRU	5/16-18	SBT110
SBTP-111	.88	1.00	2.38	1.625	.38	.50	.56	3/8-16	SBT111
SBTP-112	1.00	.75	1.50	.750	.38	.38	.50	5/16-18	SBT112
SBTP-113	1.00	1.00	1.81	1.187	.31	.50	.50	5/16-18	SBT113
SBTP-114	1.25	1.00	1.81	1.187	.31	.50	.50	5/16–18	SBT114
SBTP-115	1.25	1.25	2.18	1.437	.38	.62	.62	3/8-16	SBT115

Material: 1018 C.R.S.

Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case, (Threads Soft) Finish: Black Oxide

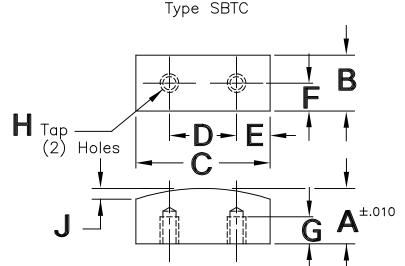
Model Number Development Detail Standard Tapped Stop Block (For Special Sizes) SBTP-.625-1.00-2.38-1.625-.38-.50-.44-3/8-16 Tapped Stop Block-"A'" Dimension -"B" Dimension "C" Dimension -"D" Dimension -"E" Dimension "F" Dimension "G" Dimension -"H" Tap -

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development " format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBTP-18-25-60-34-13-12-10-M10x1.5

CROWNED STOP BLOCK

SEE PAGES F-2 & F-7 FOR SHIMS

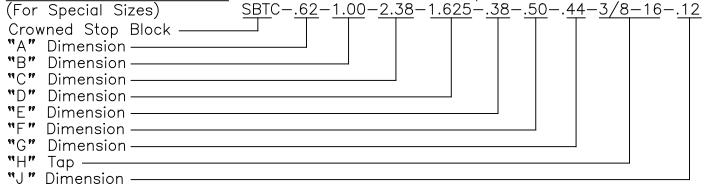


Part No.	Α	В	С	D	E	F	G	H	J	CAD FILE NO.
SBTC-101	.50	.62	1.50	.750	.38	.31	THRU	1/4–20	.06	SBTC101
SBTC-102	.62	.62	2.00	1.250	.38	.31	.38	1/4–20	.06	SBTC102
SBTC-103	.75	.62	1.25	.625	.31	.31	THRU	1/4–20	.06	SBTC103
SBTC-104	.75	1.00	2.00	1.120	.44	.50	THRU	5/16-18	.12	SBTC104
SBTC-105	.75	2.50	2.00	1.120	.44	1.25	THRU	5/16-18	.12	SBTC105
SBTC-106	.88	.62	1.50	.750	.38	.31	.38	5/16-18	.06	SBTC106
SBTC-107	.88	.62	2.00	1.250	.38	.31	.38	5/16-18	.12	SBTC107
SBTC-108	.88	1.00	1.62	1.000	.31	.50	.38	5/16-18	.06	SBTC108
SBTC-109	.88	1.00	2.38	1.625	.38	.50	THRU	3/8-16	.12	SBTC109
SBTC-110	1.00	.75	1.50	.750	.38	.38	.44	5/16-18	.06	SBTC110
SBTC-111	1.00	1.00	2.00	1.000	.50	.50	THRU	3/8-16	.12	SBTC111
SBTC-112	1.00	1.00	2.38	1.625	.38	.50	.44	3/8-16	.12	SBTC112
SBTC-113	1.25	1.00	1.81	1.187	.31	.50	.50	5/16-18	.12	SBTC113
SBTC-114	1.25	1.25	2.81	1.437	.38	.62	.75	3/8-16	.12	SBTC114
SBTC-115	1.50	1.25	2.18	1.437	.38	.62	.62	3/8-16	.12	SBTC115

Material: 1018 C.R.S.

Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case, (Threads Soft) Finish: Black Oxide

Model Number Development Detail Standard Crowned Stop Block

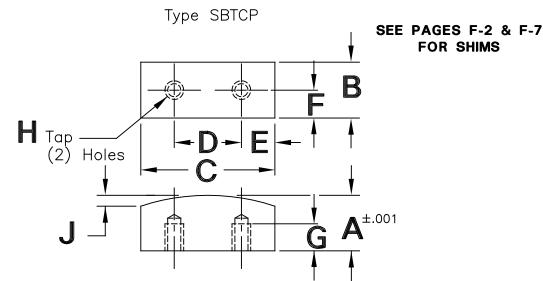


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example MSBTC-18-25-60-34-13-12-10-M10x1.5-3

CROWNED STOP BLOCK - PRECISION HEIGHT

FOR SHIMS

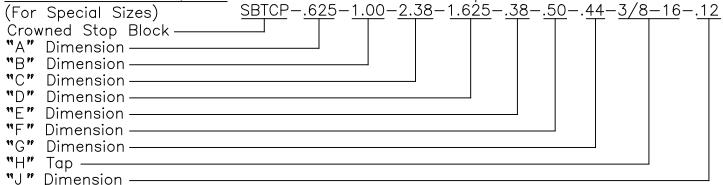


Part No.	A	В	С	D	E	F	G	Н	J	CAD FILE NO.
SBTCP-101	.500	.62	1.50	.750	.38	.31	THRU	1/4-20	.06	SBTC101
SBTCP-102	.625	.62	2.00	1.250	.38	.31	.38	1/4-20	.06	SBTC102
SBTCP-103	.750	.62	1.25	.625	.31	.31	THRU	1/4-20	.06	SBTC103
SBTCP-104	.750	1.00	2.00	1.120	.44	.50	THRU	5/16-18	.12	SBTC104
SBTCP-105	.750	2.50	2.00	1.120	.44	1.25	THRU	5/16-18	.12	SBTC105
SBTCP-106	.875	.62	1.50	.750	.38	.31	.38	5/16-18	.06	SBTC106
SBTCP-107	.875	.62	2.00	1.250	.38	.31	.38	5/16-18	.12	SBTC107
SBTCP-108	.875	1.00	1.62	1.000	.31	.50	.38	5/16-18	.06	SBTC108
SBTCP-109	.875	1.00	2.38	1.625	.38	.50	THRU	3/8-16	.12	SBTC109
SBTCP-110	1.000	.75	1.50	.750	.38	.38	.44	5/16-18	.06	SBTC110
SBTCP-111	1.000	1.00	2.00	1.000	.50	.50	THRU	3/8–16	.12	SBTC111
SBTCP-112	1.000	1.00	2.38	1.625	.38	.50	.44	3/8-16	.12	SBTC112
SBTCP-113	1.250	1.00	1.81	1.187	.31	.50	.50	5/16-18	.12	SBTC113
SBTCP-114	1.250	1.25	2.81	1.437	.38	.62	.75	3/8-16	.12	SBTC114
SBTCP-115	1.500	1.25	2.18	1.437	.38	.62	.62	3/8–16	.12	SBTC115

Material: 1018 C.R.S.

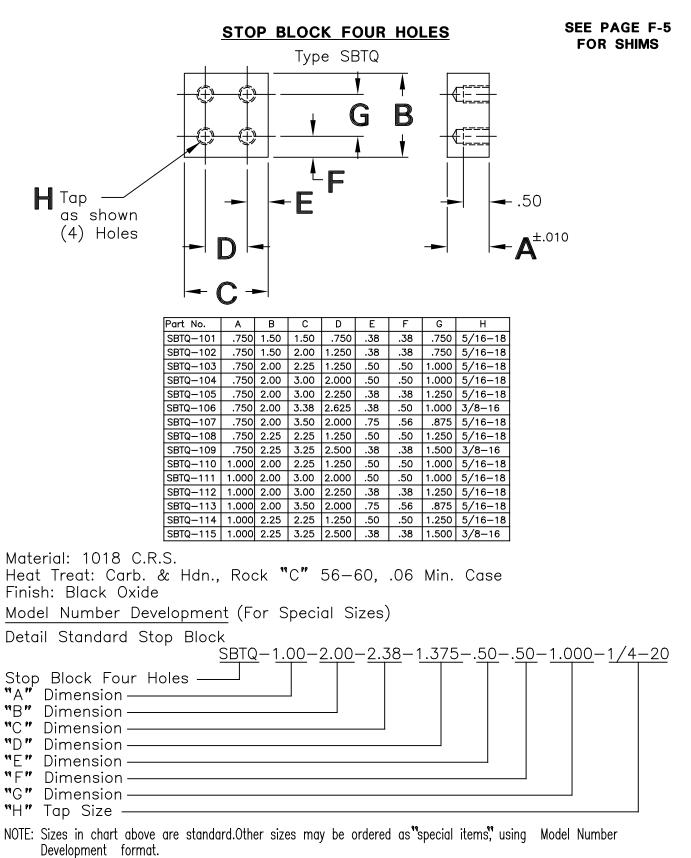
Heat Treat: Carb. & Hdn. Rock "C" 55-60, .06 Min. Case, (Threads Soft) Finish: Black Oxide

Model Number Development Detail Standard Crowned Stop Block

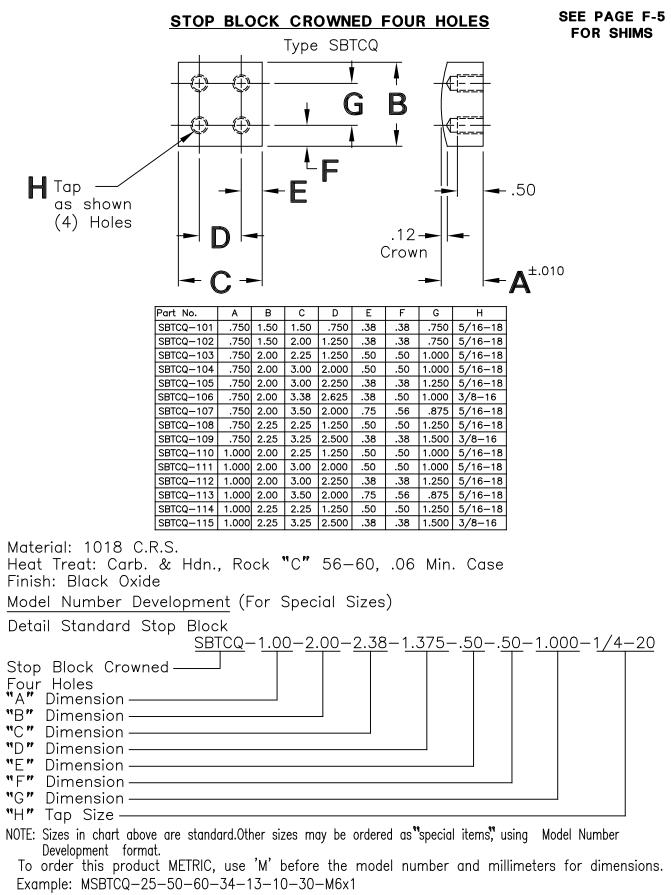


NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development " format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBTCP-18-25-60-34-13-12-10-M10x1.5-3

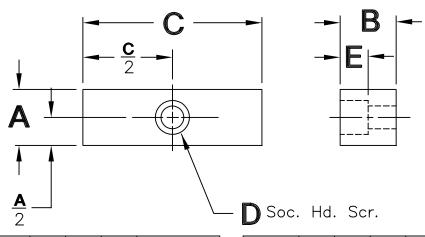


To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSBTQ-25-50-60-34-13-10-30-M6x1



FIXTURE KEY

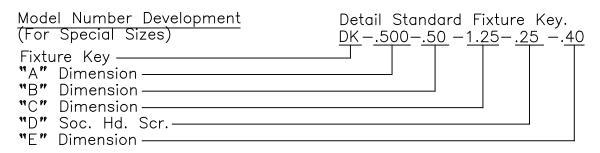
Type DK



Part No.	A ^{+.000} 003	В	С	D	E	CAD FILE NO.
DK-101	.500	.50	.75	.25	.40	DK101
DK-102	.500	.50	1.00	.25	.40	DK102
DK-103	.500	.50	1.25	.25	.40	DK103
DK-104	.500	.50	1.50	.25	.40	DK104
DK-105	.500	.50	2.00	.25	.40	DK105
DK-106	.500	.50	3.00	.25	.40	DK106
DK-107	.562	.50	.75	.25	.40	DK107
DK-108	.625	.50	.75	.25	.40	DK108
DK-109	.625	.50	1.00	.25	.40	DK109
DK-110	.625	.50	2.00	.25	.40	DK110
DK-111	.625	.50	3.00	.25	.40	DK111
DK-112	.687	.50	1.00	.31	.40	DK112
DK-113	.750	.50	1.00	.31	.40	DK113
DK-114	.750	.50	1.25	.31	.40	DK114
DK-115	.750	.50	2.00	.31	.40	DK115
DK-116	.750	.50	3.00	.31	.40	DK116
DK-117	.750	.75	2.50	.38	.56	DK117
DK-118	.750	.75	3.00	.38	.56	DK118

						1
Part No.	A ^{+.000} 004	В	С	D	E	CAD FILE NO.
DK-119	.812	.50	1.25	.31	.40	DK119
DK-120	1.000	.75	1.00	.31	.46	DK120
DK-121	1.000	.75	1.25	.31	.46	DK121
DK-122	1.000	.75	1.50	.31	.46	DK122
DK-123	1.000	.75	2.00	.31	.46	DK123
DK-124	1.000	.75	3.00	.31	.46	DK124
DK-125	1.000	1.00	2.50	.50	.75	DK125
DK-126	1.000	1.00	4.00	.50	.75	DK126
DK-127	1.250	.75	1.00	.38	.56	DK127
DK-128	1.250	.75	2.00	.38	.56	DK128
DK-129	1.250	.75	3.00	.38	.56	DK129
DK-130	1.250	1.25	3.00	.50	.75	DK130
DK-131	1.250	1.25	5.00	.50	.75	DK131
DK-132	1.500	1.00	1.00	.38	.56	DK132
DK-133	1.500	1.00	2.00	.38	.56	DK133
DK-134	1.500	1.00	3.00	.38	.56	DK134
DK-135	1.500	1.50	3.00	.50	.75	DK135
DK-136	1.500	1.50	6.00	.50	.75	DK136

Material: Keystock Finish: Black Oxide

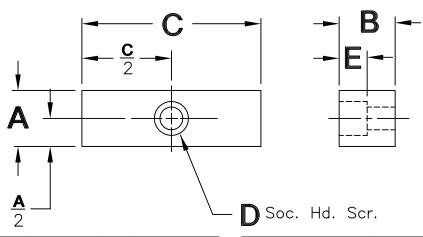


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDK-12-12-30-6-8

FIXTURE KEY

Type DKF



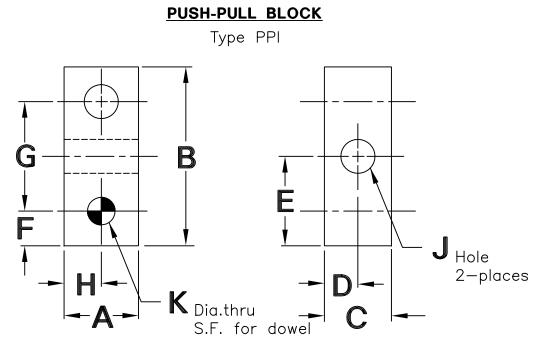
Part No.	A ^{+.000} 003	В	С	D	E	CAD FILE NO.
DKF-101	.503	.50	.75	.25	.40	DKF101
DKF-102	.503	.50	1.00	.25	.40	DKF102
DKF-103	.503	.50	1.25	.25	.40	DKF103
DKF-104	.503	.50	1.50	.25	.40	DKF104
DKF-105	.503	.50	2.00	.25	.40	DKF105
DKF-106	.503	.50	3.00	.25	.40	DKF106
DKF-107	.565	.50	.75	.25	.40	DKF107
DKF-108	.628	.50	.75	.25	.40	DKF108
DKF-109	.628	.50	1.00	.25	.40	DKF109
DKF-110	.628	.50	2.00	.25	.40	DKF110
DKF-111	.628	.50	3.00	.25	.40	DKF111
DKF-112	.690	.50	1.00	.31	.40	DKF112
DKF-113	.753	.50	1.00	.31	.40	DKF113
DKF-114	.753	.50	1.25	.31	.40	DKF114
DKF-115	.753	.50	2.00	.31	.40	DKF115
DKF-116	.753	.50	3.00	.31	.40	DKF116
DKF-117	.753	.75	2.50	.38	.56	DKF117
DKF-118	.753	.75	3.00	.38	.56	DKF118

						1
Part No.	A ^{+.000} 004	В	С	D	Е	CAD FILE NO.
DKF-119	.816	.50	1.25	.31	.40	DKF119
DKF-120	1.004	.75	1.00	.31	.46	DKF120
DKF-121	1.004	.75	1.25	.31	.46	DKF121
DKF-122	1.004	.75	1.50	.31	.46	DKF122
DKF-123	1.004	.75	2.00	.31	.46	DKF123
DKF-124	1.004	.75	3.00	.31	.46	DKF124
DKF-125	1.004	1.00	2.50	.50	.75	DKF125
DKF-126	1.004	1.00	4.00	.50	.75	DKF126
DKF-127	1.254	.75	1.00	.38	.56	DKF127
DKF-128	1.254	.75	2.00	.38	.56	DKF128
DKF-129	1.254	.75	3.00	.38	.56	DKF129
DKF-130	1.254	1.25	3.00	.50	.75	DKF130
DKF-131	1.254	1.25	5.00	.50	.75	DKF131
DKF-132	1.504	1.00	1.00	.38	.56	DKF132
DKF-133	1.504	1.00	2.00	.38	.56	DKF133
DKF-134	1.504	1.00	3.00	.38	.56	DKF134
DKF-135	1.504	1.50	3.00	.50	.75	DKF135
DKF-136	1.504	1.50	6.00	.50	.75	DKF136

Material: Keystock Finish: Black Oxide

NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items,using "Model Number Development" format.

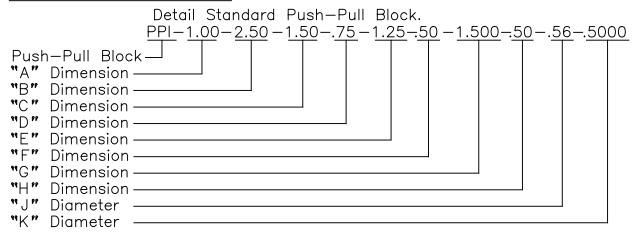
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDKF-12-12-30-6-8



Part No.	A	В	С	D	Е	F	G	Н	J	K
PPI-101	1.00	2.25	1.00	.50	1.12	.50	1.250	.50	.41	.3750
PPI-102	1.50	2.75	1.52	.67	1.38	.63	1.500	.75	.56	.5000
PPI-103	1.00	2.00	1.75	1.12	1.00	.38	1.250	.50	.41	.3750
PPI-104	.75	2.00	1.48	.86	1.00	.38	1.250	.38	.31	.3125
PPI-105	1.50	3.25	1.25	.62	1.62	.62	2.000	.75	.68	.5000
PPI-106	.75	2.00	.87	.56	1.00	.38	1.250	.38	.34	.3125
PPI-107	1.00	2.00	1.63	1.11	1.00	.38	1.250	.50	.41	.3750
PPI-108	1.25	2.00	1.63	1.11	1.00	.38	1.250	.62	.41	.3750
PPI-109	1.25	2.00	1.63	1.11	1.00	.38	1.250	.62	.56	.5000
PPI-110	1.00	2.00	1.00	.50	1.00	.38	1.250	.50	.44	.3750

Material: 1018 C.R.S. Finish: Black Oxide

Model Number Development (For Special Sizes)

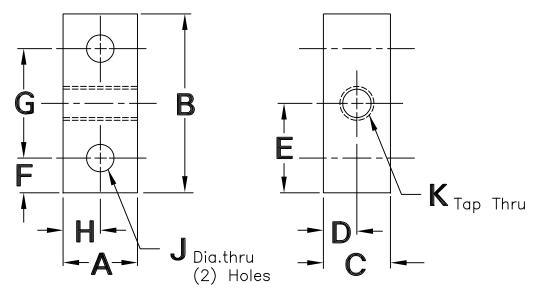


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special items," using Model Number Development format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MPPI-25-60-38-19-30-12-36-12-14-12

POSITIONING BLOCK

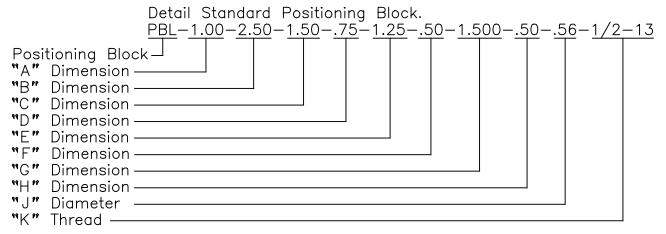
Type PBL



Part No.	А	В	С	D	E	F	G	Н	J	K
PBL-101	1.00	2.25	1.00	.50	1.12	.50	1.250	.50	.41	3/8–16
PBL-102	1.50	2.75	1.52	.67	1.38	.63	1.500	.75	.56	1/2-13
PBL-103	1.00	2.00	1.75	1.12	1.00	.38	1.250	.50	.41	3/8–16
PBL-104	.75	2.00	1.48	.86	1.00	.38	1.250	.38	.31	5/16-18
PBL-105	1.50	3.25	1.25	.62	1.62	.62	2.000	.75	.68	1/2-13
PBL-106	.75	2.00	.87	.56	1.00	.38	1.250	.38	.34	5/16-18
PBL-107	1.00	2.00	1.63	1.11	1.00	.38	1.250	.50	.41	3/8-16
PBL-108	1.25	2.00	1.63	1.11	1.00	.38	1.250	.62	.41	3/8–16
PBL-109	1.25	2.00	1.63	1.11	1.00	.38	1.250	.62	.56	1/2–13
PBL-110	1.00	2.00	1.00	.50	1.00	.38	1.250	.50	.44	3/8–16

Material: 1018 C.R.S. Finish: Black Oxide

Model Number Development (For Special Sizes)

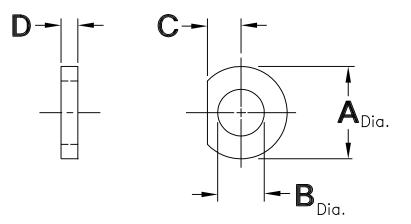


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special items," using Model Number Development format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MPBL-25-60-38-19-30-12-36-12-14-M12x1.75

<u>"D" WASHER</u>

SEE PAGE E-28 FOR MORE SIZES



				-	
А	В	B TOL.	С	D	CAD FILE NO.
.88	.28	±.010	.38	.25	D101
.88	.41	±.010	.38	.25	D102
1.00	.28	±.010	.25	.12	D103
1.00	.28	±.010	.44	.25	D104
1.00	.378	±.002	.44	.25	D105
1.00	.41	±.010	.44	.25	D106
1.00	.53	±.010	.44	.25	D107
1.25	.28	±.010	.50	.25	D108
1.25	.41	±.010	.50	.25	D109
1.25	.41	±.010	.50	.38	D110
1.25	.503	±.002	.50	.25	D111
1.25	.53	±.010	.50	.25	D112
1.25	.53	±.010	.50	.38	D113
1.25	.69	±.010	.50	.25	D114
1.25	.69	±.010	.50	.38	D115
	.88 .88 1.00 1.00 1.00 1.00 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25	.88 .28 .88 .41 1.00 .28 1.00 .28 1.00 .28 1.00 .378 1.00 .53 1.25 .28 1.25 .41 1.25 .41 1.25 .41 1.25 .503 1.25 .53 1.25 .53 1.25 .53 1.25 .69	.88 .28 ±.010 .88 .41 ±.010 1.00 .28 ±.010 1.00 .28 ±.010 1.00 .28 ±.010 1.00 .378 ±.022 1.00 .41 ±.010 1.00 .53 ±.010 1.25 .28 ±.010 1.25 .41 ±.010 1.25 .41 ±.010 1.25 .41 ±.010 1.25 .503 ±.002 1.25 .53 ±.010 1.25 .53 ±.010 1.25 .53 ±.010 1.25 .53 ±.010 1.25 .69 ±.010	.88.28 \pm .010.38.88.41 \pm .010.381.00.28 \pm .010.251.00.28 \pm .010.441.00.378 \pm .002.441.00.378 \pm .002.441.00.53 \pm .010.441.00.53 \pm .010.501.25.28 \pm .010.501.25.41 \pm .010.501.25.503 \pm .010.501.25.53 \pm .010.50	.88.28 \pm .010.38.25.88.41 \pm .010.38.251.00.28 \pm .010.25.121.00.28 \pm .010.44.251.00.378 \pm .002.44.251.00.378 \pm .010.44.251.00.41 \pm .010.44.251.00.53 \pm .010.44.251.25.28 \pm .010.50.251.25.41 \pm .010.50.251.25.41 \pm .010.50.251.25.53 \pm .010.50.251.25.53 \pm .010.50.251.25.53 \pm .010.50.251.25.53 \pm .010.50.251.25.69 \pm .010.50.25

Part No.	Α	В	B TOL.	С	D	CAD FILE NO.
D-116	1.50	.41	±.010	.62	.25	D116
D-117	1.50	.53	±.010	.62	.25	D117
D-118	1.50	.53	±.010	.62	.38	D118
D-119	1.50	.628	±.002	.56	.25	D119
D-120	1.50	.69	±.010	.62	.25	D120
D-121	1.50	.69	±.010	.62	.38	D121
D-122	1.50	.753	±.002	.64	.25	D122
D-123	1.50	.81	±.010	.62	.25	D123
D-124	1.50	.81	±.010	.62	.38	D124
D-125	2.00	.53	±.010	.75	.38	D125
D-126	2.00	.53	±.010	.75	.50	D126
D-127	2.00	.69	±.010	.75	.38	D127
D-128	2.00	.69	±.010	.75	.50	D128
D-129	2.00	.81	±.010	.75	.38	D129
D-130	2.00	.81	±.010	.75	.50	D130

Detail Standard "D" Washer

<u>D-2.00-.81-.75-.50</u>

Material: 1018 C.R.S. Finish: Black Oxide

Model Number Development

- (For Special Sizes)
- "D" Washer —
- "A" Diameter —
- "B" Diameter-
- "C" Dimension -
- "D" Thickness -

NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

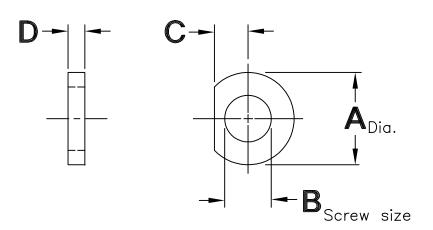
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MD-50-20-20-12

Type D



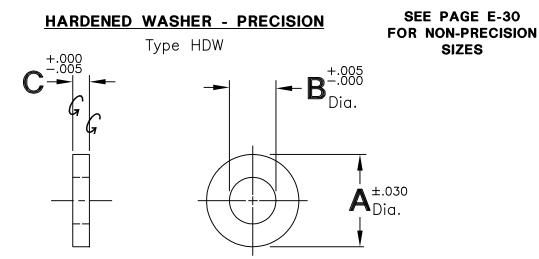
SEE PAGE E-27 FOR MORE SIZES

Type D



Part No.	A	В	С	D	MAT'L/PLATING	REF. NUMBER	CAD FILE NO.					
D-131	.75	.25	.25	.125	STEEL	DSC-D-14	D131					
D-132	.875	.31	.312	.125	STEEL	DSC-D-516	D132					
D-133	1.00	.38	.38	.25	STEEL	56ZF24981-38	D133					
						56ZM2359-2						
D-134	1.00	.38	.38	.14	STEEL	DSC-D-38	D134					
						FSD 14102						
D-135	1.00	.38	.38	.14	STAINLESS	FSD 14102SS	D135					
											56ZM2359-3	
D-136	1.25	.50	.50	.19	STEEL	DSC-D-12	D136					
						FSD 14103						
D-137	1.25	.50	.50	.19	STAINLESS	FSD 14103SS	D137					
D-138	1.25	.50	.50	.19	STEEL/ZINC	FSD 14103Z	D138					
D-111	1.25	.50	.50	.25	STEEL	56ZF24981-12	D111					
D-139	1.38	.63	.56	.19	STEEL	DSC-D-58	D139					
D-140	1.38	.63	.63	.25	STEEL	56ZF24981-58	D140					
						56ZF24981-34						
D-122	1.50	.75	.63	.25	STEEL	FSD 14239	D122					
						DSC-D-34						
D-141	1.75	.88	.69	.25	STEEL	DSC-D-78	D141					
D-142	2.00	1.00	.75	.31	STEEL	DSC-D-100	D142					

NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format found on page 28.0 - 1.



Part No.	А	В	С	CAD FILE NO.
HDW-101	.88	.317	.125	HDW101
HDW-102	1.00	.380	.125	HDW102
HDW-103	1.12	.443	.156	HDW103
HDW-104	.75	.505	.125	HDW104
HDW-105	1.12	.505	.156	HDW105
HDW-106	1.25	.505	.188	HDW106
HDW-107	1.38	.567	.094	HDW107
HDW-108	1.38	.567	.188	HDW108
HDW-109	.78	.630	.125	HDW109
HDW-110	1.25	.630	.094	HDW110
HDW-111	1.25	.630	.188	HDW111
HDW-112	1.38	.630	.188	HDW112
HDW-113	1.50	.630	.094	HDW113
HDW-114	1.50	.630	.188	HDW114
HDW-115	1.75	.630	.188	HDW115
HDW-116	1.00	.755	.094	HDW116
HDW-117	1.31	.755	.094	HDW117
HDW-118	1.31	.755	.188	HDW118

Part No.	А	В	с	CAD FILE NO.
HDW-119	1.62	.755	.125	HDW119
HDW-120	1.62	.755	.188	HDW120
HDW-121	1.75	.755	.188	HDW121
HDW-122	2.00	.755	.188	HDW122
HDW-123	1.18	.880	.094	HDW123
HDW-124	2.00	.880	.125	HDW124
HDW-125	2.00	.880	.188	HDW125
HDW-126	2.25	.880	.188	HDW126
HDW-127	1.56	1.005	.125	HDW127
HDW-128	1.56	1.005	.188	HDW128
HDW-129	2.00	1.005	.125	HDW129
HDW-130	2.00	1.005	.188	HDW130
HDW-131	2.25	1.005	.188	HDW131
HDW-132	2.50	1.005	.250	HDW132
HDW-133	2.50	1.130	.250	HDW133
HDW-134	2.00	1.255	.188	HDW134
HDW-135	2.50	1.255	.250	HDW135
HDW-136	3.00	1.255	.250	HDW136

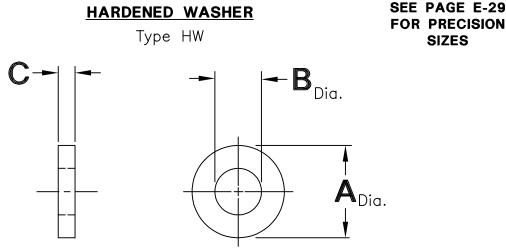
Material: 1020 H.R.S.

Heat Treat: Carb. Hardened and Grind, Rock "C" 55-60, .03 Min. Case. Finish: Ground to Size and Black Oxide

Model Number Development	Detail Standard Hardened Washer
(For Special Sizes)	<u>HDW</u> - <u>2.00</u> - <u>.750</u> - <u>.25</u>
Hardened Washer — — — — — — — — — — — — — — — — — — —	
"A" Diameter ————	
"B" Diameter————	
"C" Thickness ————	

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHDW-50-20-6



Part No.	A	В	С	CAD FILE NO.
HW-101	.88	.32	.12	HDW101
HW-102	1.00	.38	.12	HDW102
HW-103	1.12	.44	.16	HDW103
HW-104	.75	.53	.12	HDW104
HW-105	1.12	.53	.16	HDW105
HW-106	1.25	.53	.19	HDW106
HW-107	1.38	.56	.09	HDW107
HW-108	1.38	.56	.19	HDW108
HW-109	.78	.63	.12	HDW109
HW-110	1.25	.63	.09	HDW110
HW-111	1.25	.63	.19	HDW111
HW-112	1.38	.63	.19	HDW112
HW-113	1.50	.63	.09	HDW113
HW-114	1.50	.63	.19	HDW114
HW-115	1.75	.63	.19	HDW115
HW-116	1.00	.78	.09	HDW116
HW-117	1.31	.78	.09	HDW117
HW-118	1.31	.78	.19	HDW118

А	В	С	CAD FILE NO.
1.62	.78	.12	HDW119
1.62	.78	.19	HDW120
1.75	.78	.19	HDW121
2.00	.78	.19	HDW122
1.18	.94	.09	HDW123
2.00	.94	.12	HDW124
2.00	.94	.19	HDW125
2.25	.94	.19	HDW126
1.56	1.03	.12	HDW127
1.56	1.03	.19	HDW128
2.00	1.03	.12	HDW129
2.00	1.03	.19	HDW130
2.25	1.03	.19	HDW131
2.50	1.03	.25	HDW132
2.50	1.15	.25	HDW133
2.00	1.28	.19	HDW134
2.50	1.28	.25	HDW135
3.00	1.28	.25	HDW136
	1.62 1.75 2.00 1.18 2.00 2.00 2.25 1.56 1.56 2.00 2.25 2.50 2.50 2.50 2.50	1.62 .78 1.62 .78 1.75 .78 2.00 .78 1.18 .94 2.00 .94 2.00 .94 2.00 .94 2.00 .94 2.00 .94 2.00 1.03 1.56 1.03 2.00 1.03 2.00 1.03 2.00 1.03 2.50 1.03 2.50 1.03 2.50 1.03 2.50 1.28 2.50 1.28	1.62 .78 .12 1.62 .78 .19 1.75 .78 .19 1.75 .78 .19 2.00 .78 .19 1.18 .94 .09 2.00 .94 .12 2.00 .94 .19 2.25 .94 .19 1.56 1.03 .12 1.56 1.03 .12 2.00 1.03 .12 2.00 1.03 .12 2.50 1.03 .19 2.25 1.03 .19 2.50 1.03 .25 2.50 1.28 .19 2.50 1.28 .19 2.50 1.28 .25

SIZES

Material: 1020 H.R.S.

Heat Treat: Carb. and Hardened, Rock "C" 55-60, .03 Min. Case. Finish: Black Oxide

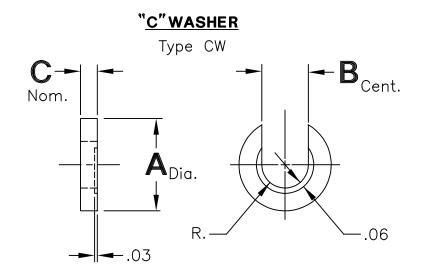
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Model Number Development
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Detail Standard Hardened Washer <u>HW -2.00 -.78 -.25</u>

- (For Special Sizes) Hardened Washer —
- "A" Diameter —
- "B" Diameter-
- "C" Thickness -

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MHW-50-20-6



Part No.	А	В	С	CAD FILE NO.
CW-101	.88	.32	.12	CW101
CW-102	1.00	.38	.12	CW102
CW-103	1.12	.44	.16	CW103
CW-104	.75	.51	.12	CW104
CW-105	1.12	.51	.16	CW105
CW-106	1.25	.51	.18	CW106
CW-107	1.38	.57	.09	CW107
CW-108	1.38	.57	.18	CW108
CW-109	.78	.63	.12	CW109
CW-110	1.25	.63	.09	CW110
CW-111	1.25	.63	.18	CW111
CW-112	1.38	.63	.18	CW112
CW-113	1.50	.63	.09	CW113
CW-114	1.50	.63	.18	CW114
CW-115	1.75	.63	.18	CW115
CW-116	1.00	.76	.09	CW116
CW-117	1.31	.76	.09	CW117
CW-118	1.31	.76	.18	CW118

Part No.	А	В	С	CAD FILE NO.
CW-119	1.62	.76	.12	CW119
CW-120	1.62	.76	.18	CW120
CW-121	1.75	.76	.18	CW121
CW-122	2.00	.76	.18	CW122
CW-123	1.18	.88	.09	CW123
CW-124	2.00	.88	.12	CW124
CW-125	2.00	.88	.18	CW125
CW-126	2.25	.88	.18	CW126
CW-127	1.56	1.01	.12	CW127
CW-128	1.56	1.01	.18	CW128
CW-129	2.00	1.01	.12	CW129
CW-130	2.00	1.01	.18	CW130
CW-131	2.25	1.01	.18	CW131
CW-132	2.50	1.01	.25	CW132
CW-133	2.50	1.13	.25	CW133
CW-134	2.00	1.26	.18	CW134
CW-135	2.50	1.26	.25	CW135
CW-136	3.00	1.26	.25	CW136

Material: 1018 C.R.S. Heat Treat: NONE. Finish: Black Oxide <u>Model Number Development</u> (For Special Sizes)

"C"Washer — "A" Diameter –

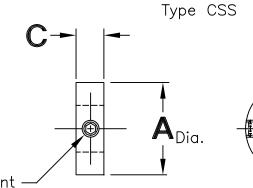
"B" Dim. —— "C" Thickness - Detail Standard "C" Washer <u>CW</u>-2.00-.750-.25 _____

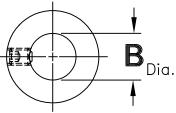
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MCW-50-20-6

SET SCREW COLLAR

SEE PAGE E-33 FOR THREADED STYLE

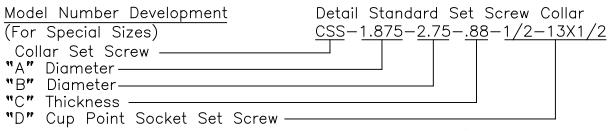




D Cup Point —́ Socket Set Screw

Part No.	Α	B +.001 000	С	D	CAD FILE NO.	Part No.	Α	B +.002 000	С	D	CAD FILE NO.
CSS-101	.44	.188	.25	No.6X1/8	CSS101	CSS-122	2.25	1.501	.75	3/8X3/8	CSS122
CSS-102	.50	.251	.28	No.6X1/8	CSS102	CSS-123	2.50	1.563	.81	3/8X3/8	CSS123
CSS-103	.62	.313	.34	No.8X1/8	CSS103	CSS-124	2.50	1.626	.81	3/8X3/8	CSS124
CSS-104	.75	.376	.38	No.10X3/16	CSS104	CSS-125	2.50	1.688	.81	3/8X3/8	CSS125
CSS-105	.88	.438	.44	No.10X1/4	CSS105	CSS-126	2.75	1.751	.88	1/2X1/2	CSS126
CSS-106	1.00	.501	.44	No.10X1/4	CSS106	CSS-127	2.75	1.813	.88	1/2X1/2	CSS127
CSS-107	1.00	.563	.44	No.10X1/4	CSS107	CSS-128	2.75	1.876	.88	1/2X1/2	CSS128
CSS-108	1.12	.626	.50	1/4X1/4	CSS108	CSS-129	3.00	1.938	.88	1/2X1/2	CSS129
CSS-109	1.25	.688	.56	1/4X1/4	CSS109	CSS-130	3.00	2.001	.88	1/2X1/2	CSS130
CSS-110	1.25	.751	.56	1/4X1/4	CSS110	CSS-131	3.00	2.126	.88	1/2X1/2	CSS131
CSS-111	1.31	.813	.56	1/4X1/4	CSS111	CSS-132	3.25	2.188	.94	1/2X1/2	CSS132
CSS-112	1.50	.876	.56	1/4X1/4	CSS112	CSS-133	3.25	2.251	.94	1/2X1/2	CSS133
CSS-113	1.62	.938	.56	5/16X1/4	CSS113	CSS-134	3.25	2.313	.94	1/2X1/2	CSS134
CSS-114	1.62	1.001	.62	5/16X1/4	CSS114	CSS-135	3.25	2.376	.94	1/2X1/2	CSS135
CSS-115	1.75	1.063	.62	5/16X1/4	CSS115	CSS-136	3.50	2.438	1.00	1/2X1/2	CSS136
CSS-116	1.75	1.126	.62	5/16X1/4	CSS116	CSS-137	3.50	2.501	1.00	1/2X1/2	CSS137
CSS-117	2.00	1.094	.68	5/16X3/8	CSS117	CSS-138	3.75	2.563	1.12	1/2X9/16	CSS138
CSS-118	2.00	1.251	.68	5/16X3/8	CSS118	CSS-139	4.00	2.688	1.12	1/2X5/8	CSS139
CSS-119	2.12	1.313	.68	3/8X3/8	CSS116	CSS-140	4.00	2.751	1.12	1/2X5/8	CSS140
CSS-120	2.12	1.376	.75	3/8X3/8	CSS117	CSS-141	4.25	2.938	1.12	1/2X5/8	CSS141
CSS-121	2.25	1.438	.75	3/8X3/8	CSS118	CSS-142	4.25	3.001	1.12	1/2X5/8	CSS142

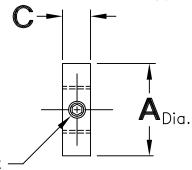
Material: 1018 C.R.S. Heat Treat: NONE. Finish: Black Oxide Cup Point Socket Set Screw included.

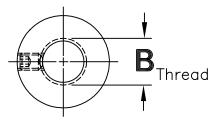


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MCSS-50-70-22-M10-1.5x12

THREADED SET SCREW COLLAR Type CST SEE PAGE E-32 FOR PLAIN BORE STYLE

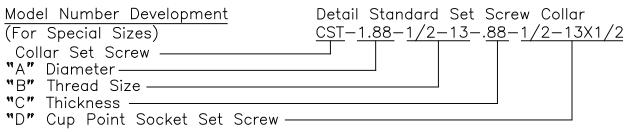




Cup	Ρc	oint –		
			Screw	,

Part No.	А	В	С	D	CAD FILE	Part No.	А	В	С	D	CAD FILE
CST-101	.44	# 10 — 32	.25	No.6X1/8	CST101	CST-122	2.25	1 1/2-6	.75	3/8X3/8	CST122
CST-102	.50	1/4-20	.28	No.6X1/8	CST102	CST-123	2.50	1"-8	.81	3/8X3/8	CST123
CST-103	.62	5/16-18	.34	No.8X1/8	CST103	CST-124	2.50	1 1/2-12	.81	3/8X3/8	CST124
CST-104	.75	3/8-16	.38	No.10X3/16	CST104	CST-125	2.50	1 1/2-6	.81	3/8X3/8	CST125
CST-105	.88	7/16-14	.44	No.10X1/4	CST105	CST-126	2.75	1 1/2-12	.88	1/2X1/2	CST126
CST-106	1.00	1/2-13	.44	No.10X1/4	CST106	CST-127	2.75	1 3/4-5	.88	1/2X1/2	CST127
CST-107	1.00	5/8-11	.44	No.10X1/4	CST107	CST-128	2.75	1 3/4-12	.88	1/2X1/2	CST128
CST-108	1.12	5/8–11	.50	1/4X1/4	CST108	CST-129	3.00	1"—8	.88	1/2X1/2	CST129
CST-109	1.25	5/8-11	.56	1/4X1/4	CST109	CST-130	3.00	1 1/2-6	.88	1/2X1/2	CST130
CST-110	1.25	3/4-10	.56	1/4X1/4	CST110	CST-131	3.00	2"-12	.88	1/2X1/2	CST131
CST-111	1.31	3/4-10	.56	1/4X1/4	CST111	CST-132	3.25	3/4–10	.94	1/2X1/2	CST132
CST-112	1.50	7/8–9	.56	1/4X1/4	CST112	CST-133	3.25	1"—8	.94	1/2X1/2	CST133
CST-113	1.62	1"—8	.56	5/16X1/4	CST113	CST-134	3.25	1 1/2-6	.94	1/2X1/2	CST134
CST-114	1.62	1"—8	.62	5/16X1/4	CST114	CST-135	3.25	2"–12	.94	1/2X1/2	CST135
CST-115	1.75	1"—8	.62	5/16X1/4	CST115	CST-136	3.50	1"—8	1.00	1/2X1/2	CST136
CST-116	1.75	1"—8	.62	5/16X1/4	CST116	CST-137	3.50	2"–12	1.00	1/2X1/2	CST137
CST-117	2.00	1"—8	.68	5/16X3/8	CST117	CST-138	3.75	2"-12	1.12	1/2X9/16	CST138
CST-118	2.00	1 1/4-7	.68	5/16X3/8	CST118	CST-139	4.00	2"—12	1.12	1/2X5/8	CST139
CST-119	2.12	1 1/4-7	.68	3/8X3/8	CST116	CST-140	4.00	2"—12	1.12	1/2X5/8	CST140
CST-120	2.12	1 1/4-7	.75	3/8X3/8	CST117	CST-141	4.25	2"-12	1.12	1/2X5/8	CST141
CST-121	2.25	1 1/2-6	.75	3/8X3/8	CST118	CST-142	4.25	2"—12	1.12	1/2X5/8	CST142

Material: 1018 C.R.S. Heat Treat: NONE. Finish: Black Oxide Cup Point Socket Set Screw included.



NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MCST-50-M12-1.75-22-M10-1.5x12

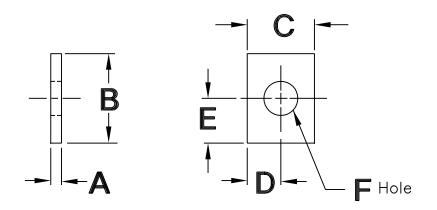
SECTION **F**

SPACERS, PLATES & PADS

SINGLE HOLE SHIM

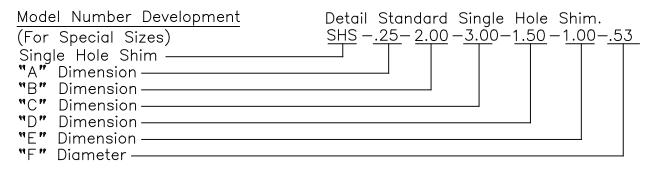
Type SHS

SEE PAGE F-6 FOR SLOTTED STYLE



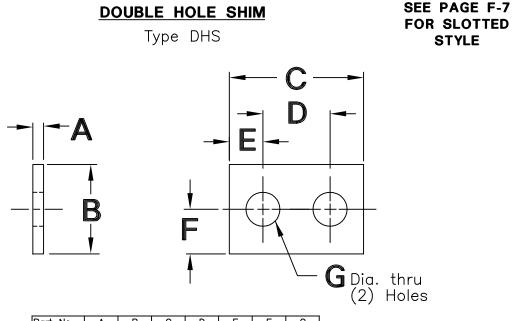
Part No.	Α	В	С	D	E	F
SHS-101	.12	.75	.75	.38	.38	.28
SHS-102	.25	.75	.75	.38	.38	.28
SHS-103	.12	1.00	1.00	.50	.50	.41
SHS-104	.25	1.00	1.00	.50	.50	.41
SHS-105	.12	1.50	1.00	.50	.75	.41
SHS-106	.25	1.50	1.00	.50	.75	.41
SHS-107	.12	2.00	1.00	.50	1.00	.41
SHS-108	.25	2.00	1.00	.50	1.00	.41
SHS-109	.12	1.50	1.50	.75	.75	.41
SHS-110	.25	1.50	1.50	.75	.75	.41
SHS-111	.25	1.25	2.00	1.00	.62	.41
SHS-112	.25	2.00	2.00	1.00	1.00	.53
SHS-113	.25	1.00	3.00	1.50	.50	.53
SHS-114	.25	1.50	3.00	1.50	.75	.53
SHS-115	.25	2.00	3.00	1.50	1.00	.53

Material: 1018 C.R.S. Finish: Black Oxide



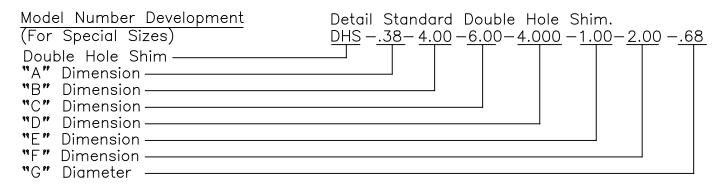
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items,using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSHS-6-50-76-32-25-13



Part No.	Α	В	С	D	Е	F	G
DHS-101	.12	.75	1.50	.750	.38	.38	.28
DHS-102	.12	1.00	2.00	1.250	.38	.50	.34
DHS-103	.25	1.00	2.50	1.500	.50	.50	.41
DHS-104	.25	1.00	3.00	2.000	.50	.50	.41
DHS-105	.25	1.50	3.00	2.000	.50	.75	.41
DHS-106	.25	1.25	3.50	2.500	.50	.62	.41
DHS-107	.25	2.00	3.50	2.500	.50	1.00	.41
DHS-108	.25	1.50	4.00	3.000	.50	.75	.41
DHS-109	.25	2.00	4.00	2.500	.75	1.00	.53
DHS-110	.25	1.50	4.50	3.000	.75	.75	.53
DHS-111	.25	2.00	4.50	3.000	.75	1.00	.68
DHS-112	.25	2.00	5.00	3.500	.75	1.00	.53
DHS-113	.38	3.00	5.00	3.000	1.00	1.50	.68
DHS-114	.25	3.50	6.00	4.750	.62	1.75	.53
DHS-115	.38	4.00	6.00	4.000	1.00	2.00	.68

Material: 1018 C.R.S. Finish: Black Oxide



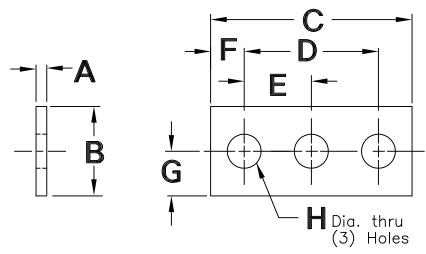
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDHS-10-100-150-100-25-50-17

TRIPLE HOLE SHIM

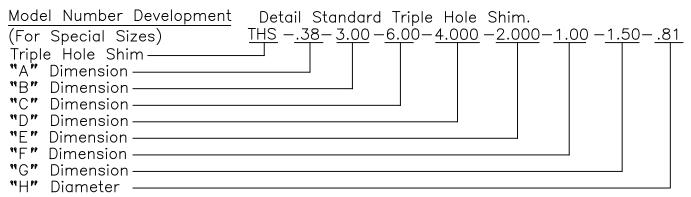
Type THS

SEE PAGE F-8 FOR SLOTTED STYLE



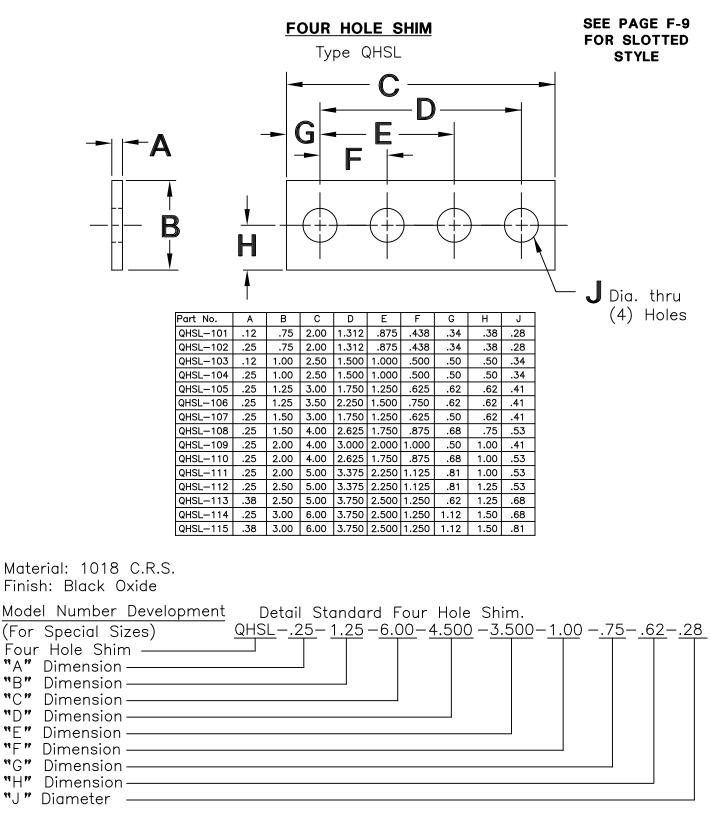
Part No.	A	В	С	D	Е	F	G	H
THS-101	.12	.75	2.00	1.250	.625	.38	.38	.34
THS-102	.25	.75	2.00	1.250	.625	.38	.38	.34
THS-103	.12	1.00	2.50	1.500	.750	.50	.50	.34
THS-104	.25	1.00	2.50	1.500	.750	.50	.50	.34
THS-105	.25	1.25	3.00	2.000	1.000	.50	.62	.41
THS-106	.25	1.25	3.50	2.250	1.125	.62	.62	.41
THS-107	.25	1.50	3.00	2.000	1.000	.50	.75	.41
THS-108	.25	1.50	4.00	2.500	1.250	.75	.75	.53
THS-109	.25	2.00	4.00	3.000	1.500	.50	1.00	.41
THS-110	.25	2.00	4.00	2.500	1.250	.75	1.00	.53
THS-111	.25	2.00	5.00	3.500	1.750	.75	1.00	.53
THS-112	.25	2.50	5.00	3.500	1.750	.75	1.25	.53
THS-113	.38	2.50	5.00	3.500	1.750	.75	1.25	.68
THS-114	.25	3.00	6.00	4.000	2.000	1.00	1.50	.68
THS-115	.38	3.00	6.00	4.000	2.000	1.00	1.50	.81

Material: 1018 C.R.S. Finish: Black Oxide



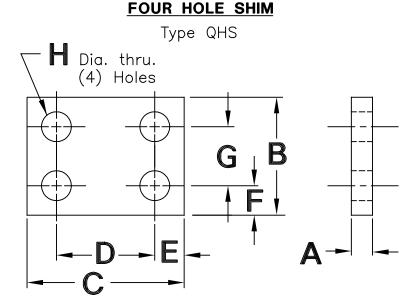
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTHS-10-76-150-100-50-25-32-21



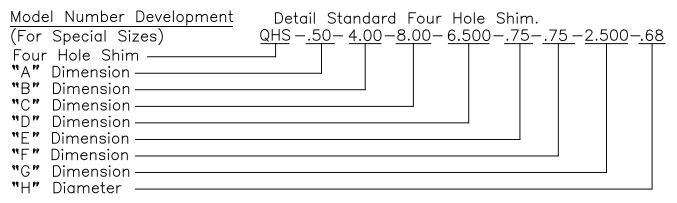
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MQHSL-6-32-150-114-57-25-19-16-7



Part No.	А	В	С	D	E	F	G	Н
Furt No.	~	Р	U U	U	E	Г	6	п
QHS-101	.12	1.50	1.50	.750	.38	.38	.750	.34
QHS-102	.25	1.50	1.50	.750	.38	.38	.750	.34
QHS-103	.12	1.50	2.00	1.250	.38	.38	.750	.34
QHS-104	.25	1.50	2.00	1.250	.38	.38	.750	.34
QHS-105	.12	2.00	3.50	2.000	.75	.56	.875	.34
QHS-106	.25	2.00	3.50	2.000	.75	.56	.875	.34
QHS-107	.12	2.25	3.25	2.500	.38	.38	1.500	.41
QHS-108	.38	2.25	3.25	2.500	.38	.38	1.500	.41
QHS-109	.25	3.00	5.00	4.000	.50	.50	2.000	.41
QHS-110	.25	3.00	6.00	5.000	.50	.50	2.000	.41
QHS-111	.25	3.50	6.00	5.000	.50	.50	2.500	.41
QHS-112	.25	3.50	6.00	4.750	.62	.62	2.250	.53
QHS-113	.50	3.50	6.00	4.750	.62	.62	2.250	.53
QHS-114	.25	4.00	7.00	5.750	.62	.62	2.750	.53
QHS-115	.50	4.00	8.00	6.500	.75	.75	2.500	.68

Material: 1018 C.R.S. Finish: Black Oxide



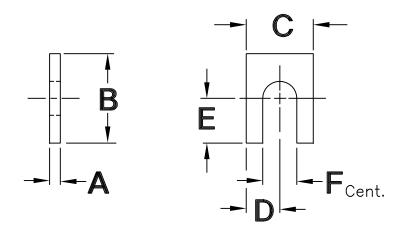
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MQHS-12-100-200-160-20-60-17

SINGLE SLOTTED SHIM

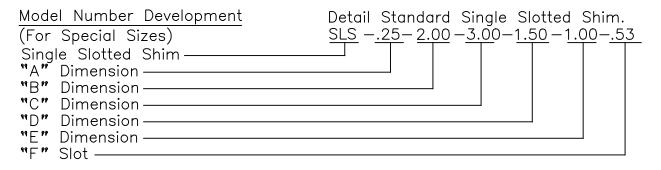
Type SLS

SEE PAGE F-1 FOR HOLE STYLE



Part No.	Α	В	С	D	Е	F
SLS-101	.12	.75	.75	.38	.38	.28
SLS-102	.25	.75	.75	.38	.38	.28
SLS-103	.12	1.00	1.00	.50	.50	.41
SLS-104	.25	1.00	1.00	.50	.50	.41
SLS-105	.12	1.50	1.00	.50	.75	.41
SLS-106	.25	1.50	1.00	.50	.75	.41
SLS-107	.12	2.00	1.00	.50	1.00	.41
SLS-108	.25	2.00	1.00	.50	1.00	.41
SLS-109	.12	1.50	1.50	.75	.75	.41
SLS-110	.25	1.50	1.50	.75	.75	.41
SLS-111	.25	1.25	2.00	1.00	.62	.41
SLS-112	.25	2.00	2.00	1.00	1.00	.53
SLS-113	.25	1.00	3.00	1.50	.50	.53
SLS-114	.25	1.50	3.00	1.50	.75	.53
SLS-115	.25	2.00	3.00	1.50	1.00	.53

Material: 1018 C.R.S. Finish: Black Oxide



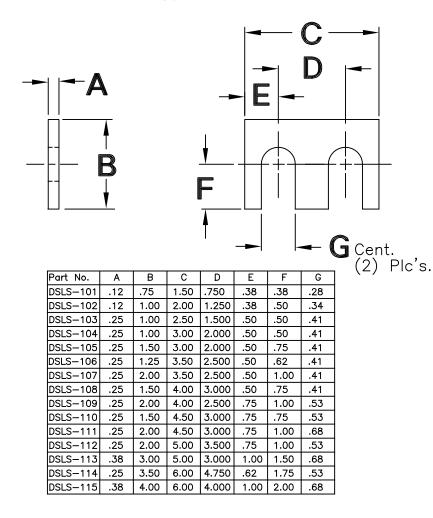
NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSLS-6-50-76-32-25-13

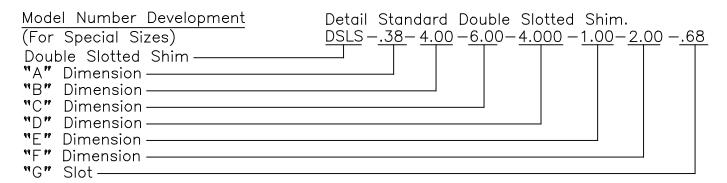
DOUBLE SLOTTED SHIM

Type DSLS

SEE PAGE F-2 FOR HOLE STYLE



Material: 1018 C.R.S. Finish: Black Oxide

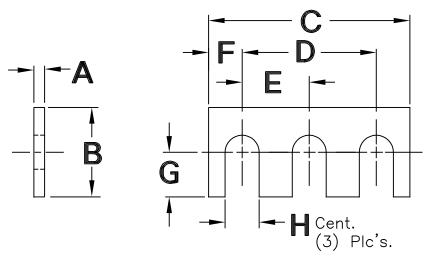


NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDSLS-10-100-150-100-25-50-17

TRIPLE SLOTTED SHIM

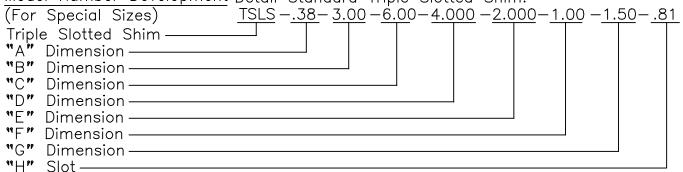
SEE PAGE F-3 FOR HOLE STYLE



Part No.	Α	В	С	D	E	F	G	Н
TSLS-101	.12	.75	2.00	1.250	.625	.38	.38	.34
TSLS-102	.25	.75	2.00	1.250	.625	.38	.38	.34
TSLS-103	.12	1.00	2.50	1.500	.750	.50	.50	.34
TSLS-104	.25	1.00	2.50	1.500	.750	.50	.50	.34
TSLS-105	.25	1.25	3.00	2.000	1.000	.50	.62	.41
TSLS-106	.25	1.25	3.50	2.250	1.125	.62	.62	.41
TSLS-107	.25	1.50	3.00	2.000	1.000	.50	.75	.41
TSLS-108	.25	1.50	4.00	2.500	1.250	.75	.75	.53
TSLS-109	.25	2.00	4.00	3.000	1.500	.50	1.00	.41
TSLS-110	.25	2.00	4.00	2.500	1.250	.75	1.00	.53
TSLS-111	.25	2.00	5.00	3.500	1.750	.75	1.00	.53
TSLS-112	.25	2.50	5.00	3.500	1.750	.75	1.25	.53
TSLS-113	.38	2.50	5.00	3.500	1.750	.75	1.25	.68
TSLS-114	.25	3.00	6.00	4.000	2.000	1.00	1.50	.68
TSLS-115	.38	3.00	6.00	4.000	2.000	1.00	1.50	.81

Material: 1018 C.R.S. Finish: Black Oxide

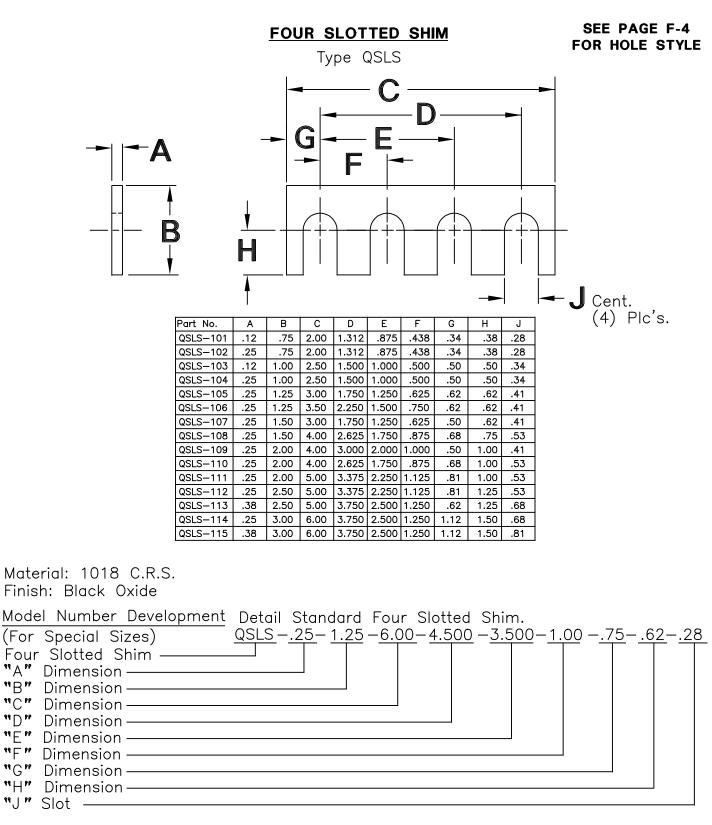
Model Number Development Detail Standard Triple Slotted Shim.



NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTSLS-10-76-150-100-50-25-32-21

Type TSLS

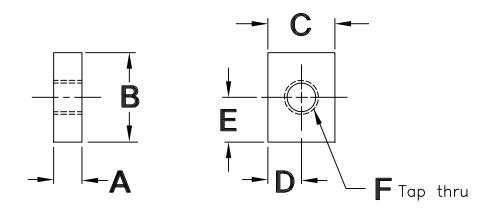


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MQSLS-6-32-150-114-57-25-19-16-7

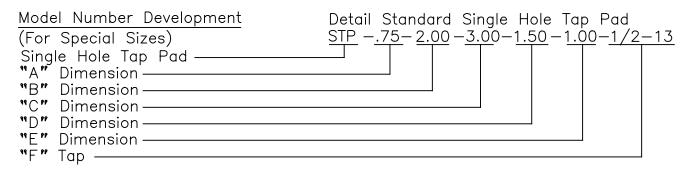
SINGLE HOLE TAP PAD

Type STP



Part No.	Α	В	С	D	E	F
STP-101	.25	.75	.75	.38	.38	1/4–20
STP-102	.38	.75	.75	.38	.38	1/4-20
STP-103	.38	1.00	1.00	.50	.50	3/8–16
STP-104	.50	1.00	1.00	.50	.50	3/8-16
STP-105	.38	1.50	1.00	.50	.75	3/8–16
STP-106	.50	1.50	1.00	.50	.75	3/8–16
STP-107	.38	2.00	1.00	.50	1.00	3/8-16
STP-108	.50	2.00	1.00	.50	1.00	3/8-16
STP-109	.38	1.50	1.50	.75	.75	3/8–16
STP-110	.50	1.50	1.50	.75	.75	3/8-16
STP-111	.50	1.25	2.00	1.00	.62	3/8-16
STP-112	.75	2.00	2.00	1.00	1.00	1/2-13
STP-113	.75	1.00	3.00	1.50	.50	1/2-13
STP-114	.75	1.50	3.00	1.50	.75	1/2-13
STP-115	.75	2.00	3.00	1.50	1.00	1/2-13

Material: 1018 C.R.S. Finish: Black Oxide

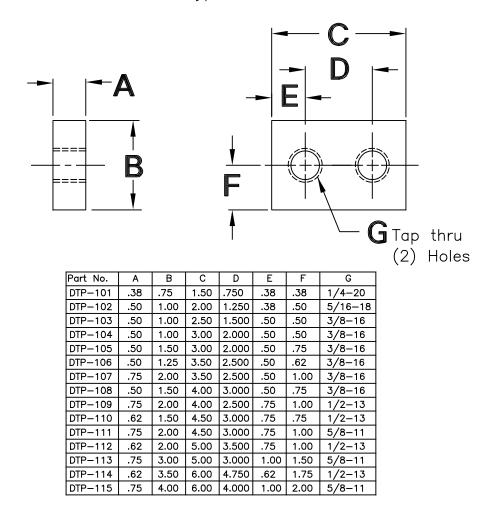


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

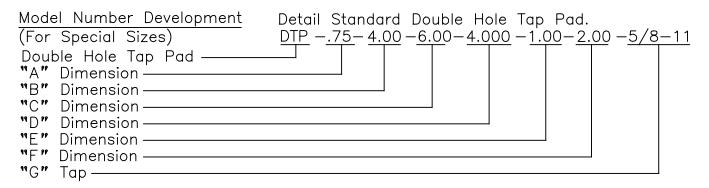
To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MSTP-20-50-76-32-25-M12-1.75

DOUBLE HOLE TAP PAD

Type DTP



Material: 1018 C.R.S. Finish: Black Oxide

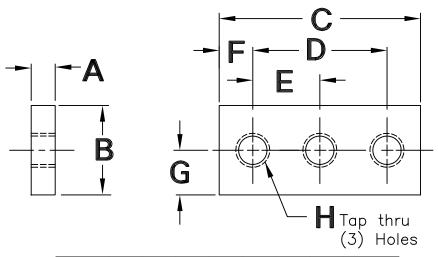


NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items,using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MDTP-20-100-150-100-25-50-M16-2

TRIPLE HOLE TAP PAD

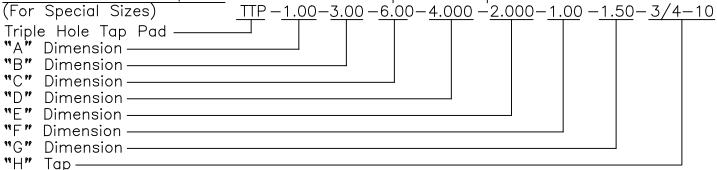
Type TTP



Part No.	А	В	С	D	E	F	G	Н
TTP-101	.38	.75	2.00	1.250	.625	.38	.38	5/16-18
TTP-102	.50	.75	2.00	1.250	.625	.38	.38	5/16-18
TTP-103	.38	1.00	2.50	1.500	.750	.50	.50	5/16-18
TTP-104	.50	1.00	2.50	1.500	.750	.50	.50	5/16-18
TTP-105	.50	1.25	3.00	2.000	1.000	.50	.62	3/8–16
TTP-106	.50	1.25	3.50	2.250	1.125	.62	.62	3/8–16
TTP-107	.50	1.50	3.00	2.000	1.000	.50	.75	3/8–16
TTP-108	.75	1.50	4.00	2.500	1.250	.75	.75	1/2-13
TTP-109	.50	2.00	4.00	3.000	1.500	.50	1.00	3/8–16
TTP-110	.75	2.00	4.00	2.500	1.250	.75	1.00	1/2-13
TTP-111	.75	2.00	5.00	3.500	1.750	.75	1.00	1/2-13
TTP-112	.75	2.50	5.00	3.500	1.750	.75	1.25	1/2-13
TTP-113	.75	2.50	5.00	3.500	1.750	.75	1.25	5/8-11
TTP-114	1.00	3.00	6.00	4.000	2.000	1.00	1.50	5/8-11
TTP-115	1.00	3.00	6.00	4.000	2.000	1.00	1.50	3/4-10

Material: 1018 C.R.S. Finish: Black Oxide

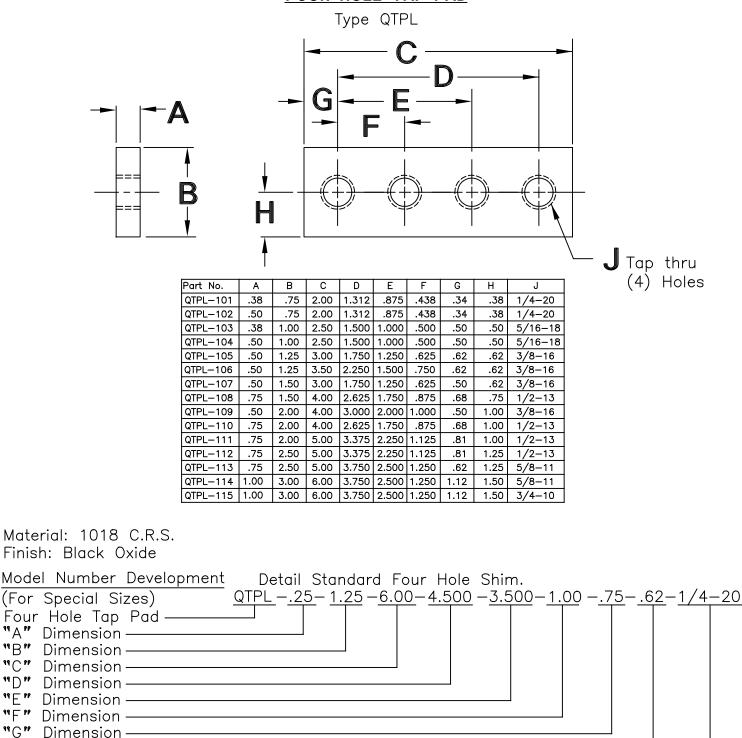
Model Number Development Detail Standard Triple Hole Tap Pad.



NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MTTP-25-76-150-100-50-25-32-M20-2.5





NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items, using "Model Number Development" format.

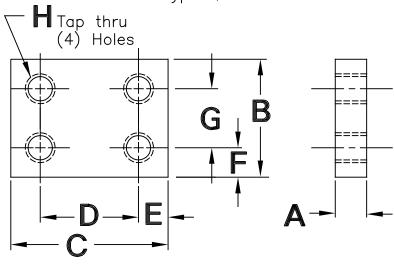
"H" Dimension -

"J" Tap

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MQTPL-12-32-150-114-57-25-19-16-M12-1.75



Type QTP



Part No.	А	В	С	D	E	F	G	Н
QTP-101	.38	1.50	1.50	.750	.38	.38	.750	5/16-18
QTP-102	.50	1.50	1.50	.750	.38	.38	.750	5/16-18
QTP-103	.38	1.50	2.00	1.250	.38	.38	.750	5/16-18
QTP-104	.50	1.50	2.00	1.250	.38	.38	.750	5/16-18
QTP-105	.38	2.00	3.50	2.000	.75	.56	.875	5/16-18
QTP-106	.50	2.00	3.50	2.000	.75	.56	.875	5/16-18
QTP-107	.50	2.25	3.25	2.500	.38	.38	1.500	3/8-16
QTP-108	.75	2.25	3.25	2.500	.38	.38	1.500	3/8–16
QTP-109	.50	3.00	5.00	4.000	.50	.50	2.000	3/8-16
QTP-110	.50	3.00	6.00	5.000	.50	.50	2.000	3/8-16
QTP-111	.50	3.50	6.00	5.000	.50	.50	2.500	3/8-16
QTP-112	.75	3.50	6.00	4.750	.62	.62	2.250	1/2–13
QTP-113	1.00	3.50	6.00	4.750	.62	.62	2.250	1/2-13
QTP-114	.75	4.00	7.00	5.750	.62	.62	2.750	1/2-13
QTP-115	.75	4.00	8.00	6.500	.75	.75	2.500	5/8-11

Material: 1018 C.R.S. Finish: Black Oxide

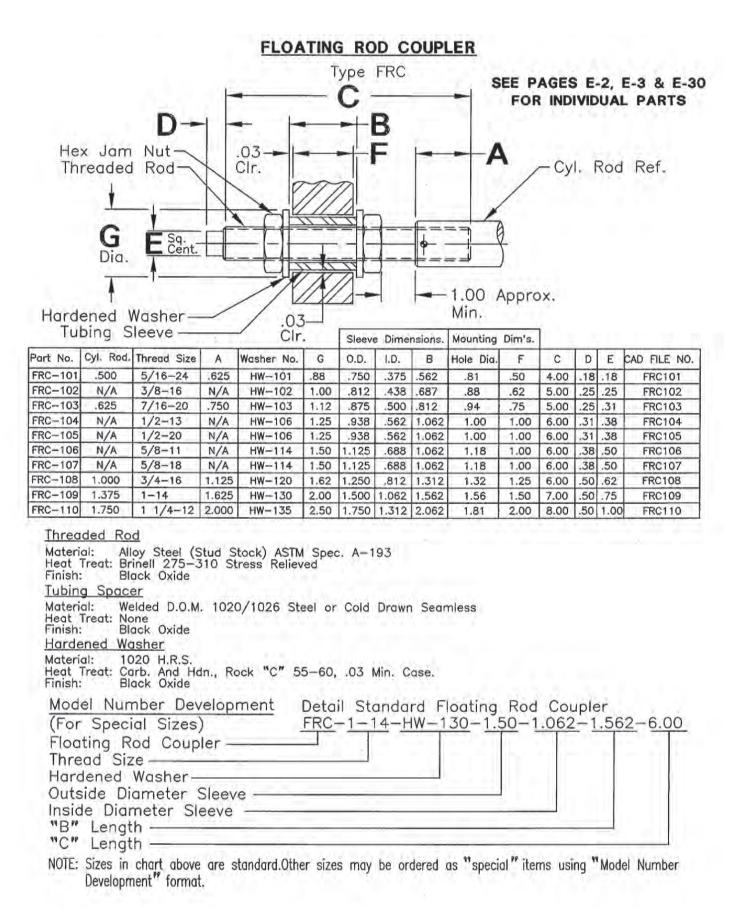
Mode	el Number I	Development	Detail S	tandard	Four	Hole	Тар	Pad			
	Special Siz		<u>QTP7</u>						<u>5 – 2.5</u>	<u>00-5/</u>	<u>8–11</u>
Four	Hole Tap	Pad —									
	Dimension -										
⁹⁹ C ⁹⁹	Dimension -										
	Dimension -										
	Dimension -										
	Dimension -										
'' G ''	Dimension -										
۹۹Η۳	Тар ———										

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

To order this product METRIC, use 'M' before the model number and millimeters for dimensions. Example: MQTP-20-100-200-160-20-20-60-M14-2

SECTION G

AUTOMATION COMPONENTS



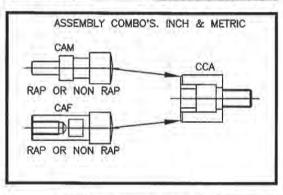
CYLINDER COUPLER ADAPTER & CYLINDER ADAPTER ASSEMBLY MATREX

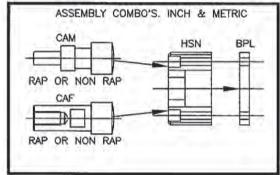
SEE PAGES G-6 TO G-15 FOR INDIVIDUAL PARTS

INCH

Part No.	Part No.	Part No.	Part No.
CAM-101R	CCA-101	HSN-101	BPL-101
CAM-101N	CCA-101	HSN-101	BPL-101
CAM-102R	CCA-102	HSN-102	BPL-102
CAM-102N	CCA-102	HSN-102	BPL-102
CAM-103R	CCA-103	HSN-103	BPL-103
CAM-103N	CCA-103	HSN-103	BPL-103

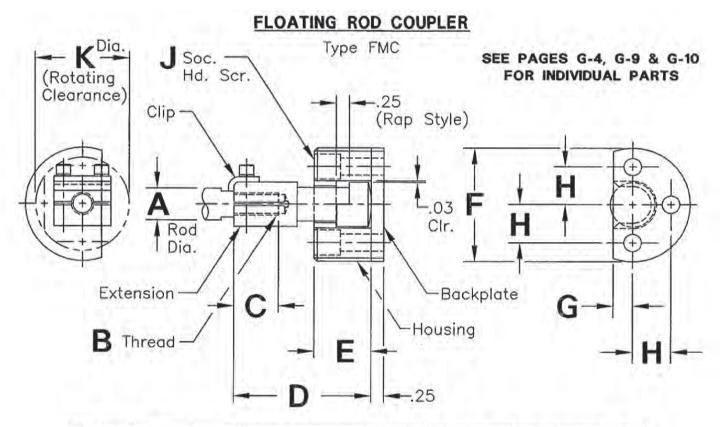
CAF-102R	CCA-102	HSN-102	BPL-102
CAF-102N	CCA-102	HSN-102	BPL-102
CAF-103R	CCA-103	HSN-103	BPL-103
CAF-103N	CCA-103	HSN-103	BPL-103
CAF-104N		HSN-104	BPL-104





METRIC

Part No.	Part No.	Part No.	Part No.
MCAM-101R	MCCA-101	MHSN-101	MBPL-101
MCAM-101N	MCCA-101	MHSN-101	MBPL-101
MCAM-102R	MCCA-102	MHSN-102	MBPL-102
MCAM-102N	MCCA-102	MHSN-102	MBPL-102
MCAM-103R	MCCA-103	MHSN-103	MBPL-103
MCAM-103N	MCCA-103	MHSN-103	MBPL-103
MCAM-104R	MCCA-104	MHSN-104	MBPL-104
MCAM-104N	MCCA-104	MHSN-104	MBPL-104
MCAM-105R	MCCA-105	1	
MCAM-105N	MCCA-105		
MCAM-106R	MCCA-106		
MCAM-106N	MCCA-106		
MCAM-107R	MCCA-107	MHSN-107	MBPL-107
MCAM-107N	MCCA-107	MHSN-107	MBPL-107
MCAM-108R	MCCA-108	MHSN-108	MBPL-108
MCAM-108N	MCCA-108	MHSN-108	MBPL-108
MCAM-109R	MCCA-109	1	
MCAM-109N	MCCA-109		
MCAM-110R	MCCA-110		
MCAM-110N	MCCA-110		
MCAM-111R	MCCA-111		
MCAM-111N	MCCA-111		
MCAF-102R	MCCA-102	MHSN-102	MBPL-102
MCAF-102N	MCCA-102	MHSN-102	MBPL-102
MCAF-103R	MCCA-103	MHSN-103	MBPL-103
MCAF-103N	MCCA-103	MHSN-103	MBPL-103
MCAF-104R	MCCA-104	MHSN-104	MBPL-104
MCAF-104N	MCCA-104	MHSN-104	MBPL-104
MCAF-105R	MCCA-105	Contraction of	
MCAF-105N	MCCA-105		
MCAF-107R	MCCA-107	MHSN-107	MBPL-107
MCAF-107N	MCCA-107	MHSN-107	MBPL-107
MCAF-109R	MCCA-109		
MCAF-109N	MCCA-109		
MCAF-111R	MCCA-111		
MCAF-111N	MCCA-111		



Part No.	Style	A	8	С	D	E	F	G	н	J	к
FMC-101R	RAP	.625	7/16-20	.88	2.50	1.12	2.25	.38	.750	.31	2.00
FMC-101N	NON-RAP	.625	7/16-20	.88	2.50	1.12	2.25	.38	.750	.31	2.00
FMC-102R	RAP	1.000	3/4-16	1.25	3.62	1.75	3.00	.44	1.000	.38	2.50
FMC-102N	NON-RAP	1.000	3/4-16	1.25	3.62	1.75	3.00	.44	1.000	.38	2.50
FMC-103R	RAP	1.375	1-14	1.75	4.50	2.00	3.50	.56	1.188	.50	2.75
FMC-103N	NON-RAP	1.375	1-14	1.75	4.50	2.00	3.50	.56	1.188	.50	2.75

Part No.	Style	Clip	Extension	Housing	Backplate
FMC-101R	RAP	CL-101	EX-101R	HSN-101	BPL-101
FMC-101N	NON-RAP	CL-101	EX-101N	HSN-101	BPL-101
FMC-102R	RAP	CL-102	EX-102R	HSN-102	BPL-102
FMC-102N	NON-RAP	CL-102	EX-102N	HSN-102	BPL-102
FMC-103R	RAP	CL-103	EX-103R	HSN-103	BPL-103
FMC-103N	NON-RAP	CL-103	EX-103N	HSN-103	BPL-103

Each Floating Rod Coupler Assembly Includes

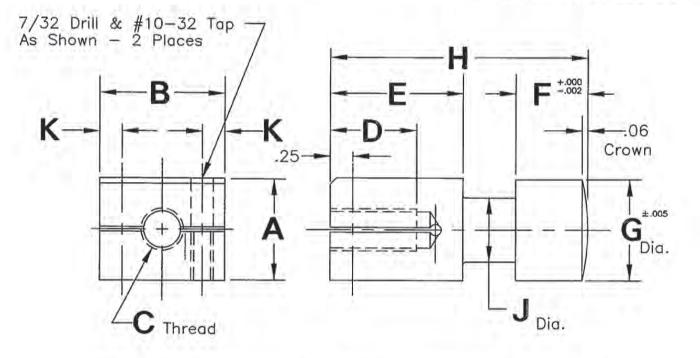
- (1) Extension
- (1) Housing
- (1) Backplate
- (1) Clip
- (2) Clamp Screws With Lockwashers

FINISH: Black Oxide

EXTENSION

Type EX

SEE PAGE G-3 FOR COMPLETE ASSEMBLY



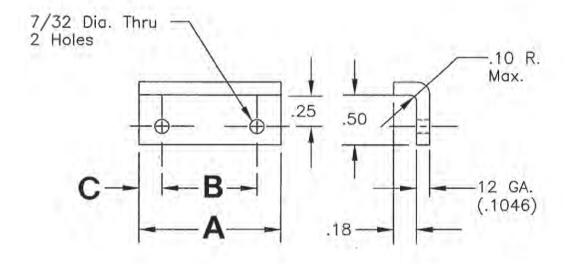
Part No.	Style	A	В	с	D	E	F	G	н	J	ĸ
EX-101R	RAP	.88	1.12	7/16-20	.88	1.25	.432	.875	2.50	.44	.18
EX-101N	NON-RAP	.88	1.12	7/16-20	.88	1.25	.680	.875	2.50	.44	.18
EX-101R-M1	RAP	.88	1.12	M10 X 1.25	.88	1.25	.432	.875	2.50	.44	.18
EX-101N-M1	NON-RAP	.88	1.12	M10 X 1.25	.88	1.25	.680	.875	2.50	.44	.18
EX-101R-M2	RAP	.88	1.12	M12 X 1.25	.88	1.25	.432	.875	2.50	.44	.18
EX-101N-M2	NON-RAP	.88	1.12	M12 X 1.25	.88	1.25	.680	.875	2.50	.44	.18
EX-102R	RAP	1.25	1.50	3/4-16	1.25	1.75	.750	1.250	3.62	.75	.18
EX-102N	NON-RAP	1.25	1.50	3/4-16	1.25	1.75	.993	1.250	3.62	.75	.18
EX-102R-M1	RAP	1.25	1.50	M16 X 1.5	1.25	1.75	.750	1.250	3.62	.75	.18
EX-102N-M1	NON-RAP	1.25	1.50	M16 X 1.5	1.25	1.75	.993	1.250	3.62	.75	.18
EX-102R-M2	RAP	1.25	1.50	M20 X 1.5	1.25	1.75	.750	1.250	3.62	.75	.18
EX-102N-M2	NON-RAP	1.25	1.50	M20 X 1.5	1.25	1.75	.993	1.250	3.62	.75	.18
EX-103R	RAP	1.50	1.75	1-14	1.75	2.38	.870	1.500	4.50	1.00	.25
EX-103N	NON-RAP	1.50	1.75	1-14	1.75	2.38	1.118	1.500	4.50	1.00	.25
EX-103R-M1	RAP	1.50	1.75	M27 X 2	1.75	2.38	.870	1.500	4.50	1.00	.25
EX-103N-M1	NON-RAP	1.50	1.75	M27 X 2	1.75	2.38	1.118	1.500	4.50	1.00	.25

Material: 12L14 Heat Treat: Carb. & Hdn., Rock. "C" 45–50, .06 min. case Finish: Black Oxide

CLIP

Type CL

SEE PAGE G-3 FOR COMPLETE ASSEMBLY



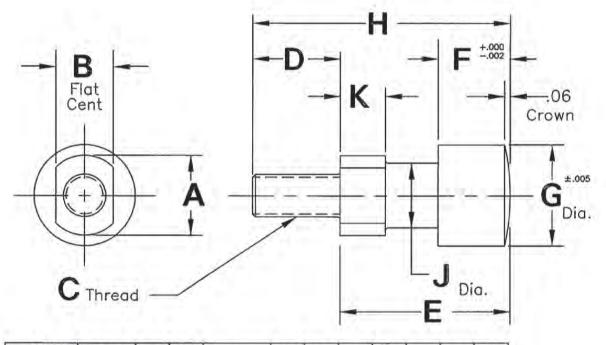
Part No.	A	в	С	Used With
CL-101	1.12	.750	.18	FMC-101R & N
CL-102	1.50	1.125	.18	FMC-102R & N
CL-103	1.75	1.250	.25	FMC-103R & N

Material: 1018 C.R.S. Heat Treat: None Finish: Black Oxide

CYLINDER ADAPTER MALE

Type CAM

SEE PAGE G-2 FOR ASSEMBLY MATRIX



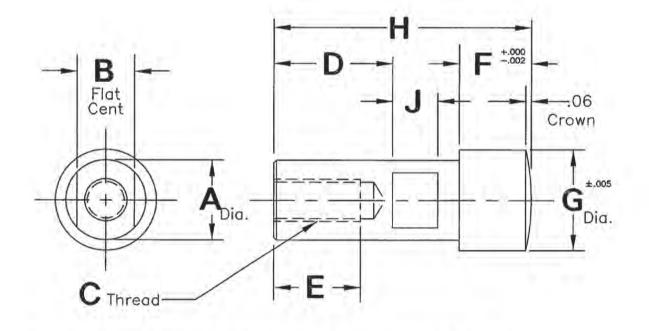
Part No.	Style	A	в	c	D	Ε	F	G	н	J	к
CAM-101R	RAP	.62	.50	7/16-20	.62	1.75	.438	.88	2.38	.44	.50
CAM-101N	NON-RAP	.62	.50	7/16-20	.62	1.75	.688	.88	2.38	.44	.50
CAM-102R	RAP	1.00	.88	3/4-16	1.00	2.38	.750	1.25	3.38	.75	.50
CAM-102N	NON-RAP	1.00	.88	3/4-16	1.00	2.38	1.000	1.25	3.38	.75	.50
CAM-103R	RAP	1.38	1.25	1"-14	1.50	2.75	.875	1.50	4.25	1.00	.62
CAM-103N	NON-RAP	1.38	1.25	1"-14	1.50	2.75	1.125	1.50	4.25	1.00	.62

Material: 12L14 Heat Treat: Carb. & Hdn., Rock. "C" 45-50, .06 min. case Finish: Black Oxide

CYLINDER ADAPTER FEMALE

Type CAF

SEE PAGE G-2 FOR ASSEMBLY MATRIX



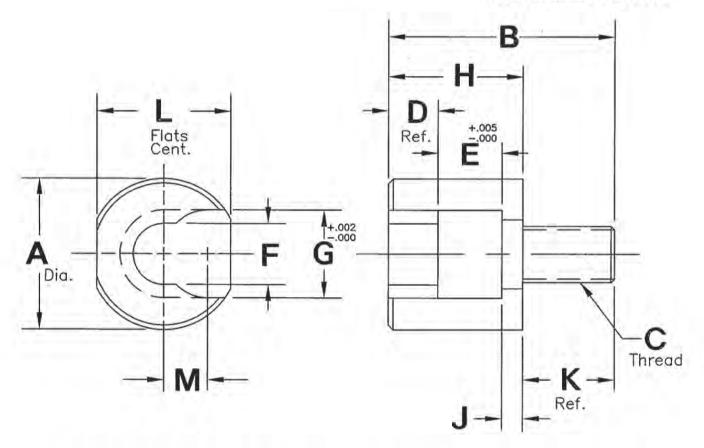
Part No.	Style	A	в	с	D	E	F	G	н	J
CAF-102R	RAP	.75	.62	7/16-20	1.00	.94	.750	1.25	2.38	.56
CAF-102N	NON-RAP	.75	.62	7/16-20	1.00	.94	1.000	1.25	2.62	.56
CAF-103R	RAP	1.00	.88	3/4-16	1.25	1.19	.875	1.50	2.75	.56
CAF-103N	NON-RAP	1.00	.88	3/4-16	1.25	1.19	1.125	1.50	3.00	.56
CAF-104N	NON-RAP	1.75	1.50	1 1/4-12	2.12	2.50	1.375	2.50	4.75	.56

Material: 12L14 Heat Treat: Carb. & Hdn., Rock. "C" 45-50, .06 min. case Finish: Black Oxide

CYLINDER COUPLER ADAPTER

Type CCA

SEE PAGE G-2 FOR ASSEMBLY MATRIX



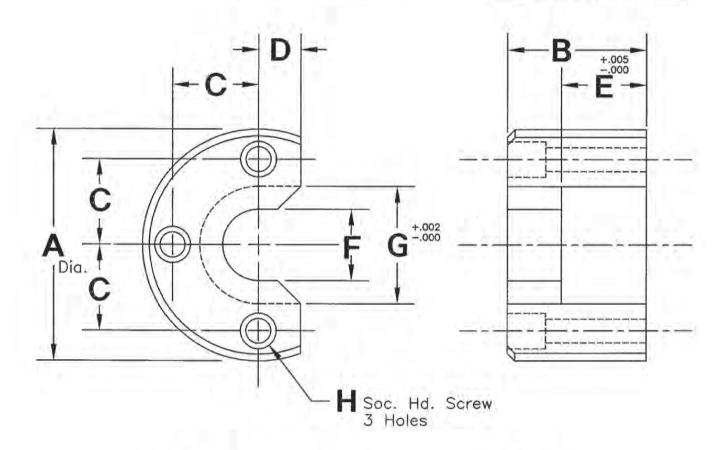
Part No.	A	В	C	D	E	F	G	н	J	K	L	М
CCA-101	1.44	2.25	7/16-20	.44	.690	.53	.930	1.50	.37	.75	1.31	.47
CCA-102	1.93	3.25	3/4-16	.75	1.000	.81	1.310	2.12	.37	1.12	1.75	.66
CCA-103	2.68	4.00	1"-14	.56	1.125	1.09	1.560	2.38	.37	1.62	2.38	.78

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide

HOUSING

Type HSN

SEE PAGE G-2 & G-3 FOR COMPLETE ASSEMBLY



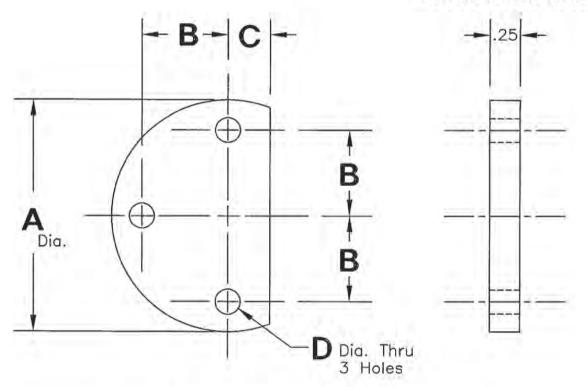
Part No.	A	В	C	D	E	F	G	H
HSN-101	2.25	1.12	.750	.38	.690	.50	.930	.31
HSN-102	3.00	1.75	1.000	.44	1.003	.81	1.310	.38
HSN-103	3.50	2.00	1.188	.56	1.125	1.06	1.560	.50
HSN-104	5.75	2.50	2.000	.81	1.375	1.81	2.560	.75

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide

BACKPLATE

Type BPL

SEE PAGE G-2 & G-3 FOR COMPLETE ASSEMBLY



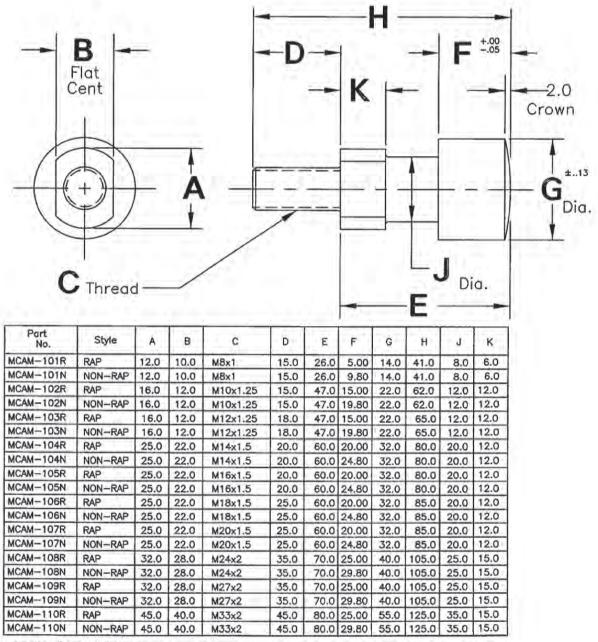
Part No.	A	в	С	D
BPL-101	2.25	.750	.38	.34
BPL-102	3.00	1.000	.44	.41
BPL-103	3.50	1.188	.56	.53
BPL-104	5.75	2.000	.81	.78

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide

METRIC CYLINDER ADAPTER MALE

Type MCAM

SEE PAGE G-2 FOR ASSEMBLY MATRIX



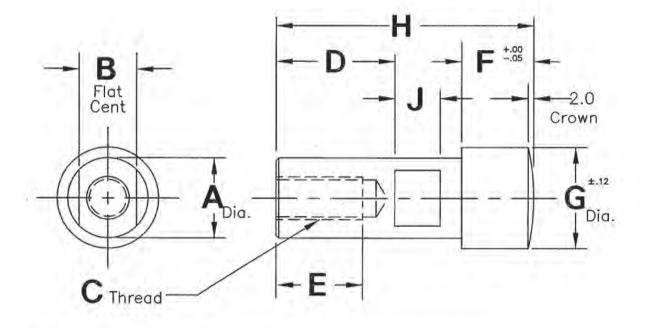
Material: 12L14

Heat Treat: Carb. & Hdn., Rock. "C" 45-50, .06 min. case Finish: Black Oxide

METRIC CYLINDER ADAPTER FEMALE

Type MCAF

SEE PAGE G-2 FOR ASSEMBLY MATRIX



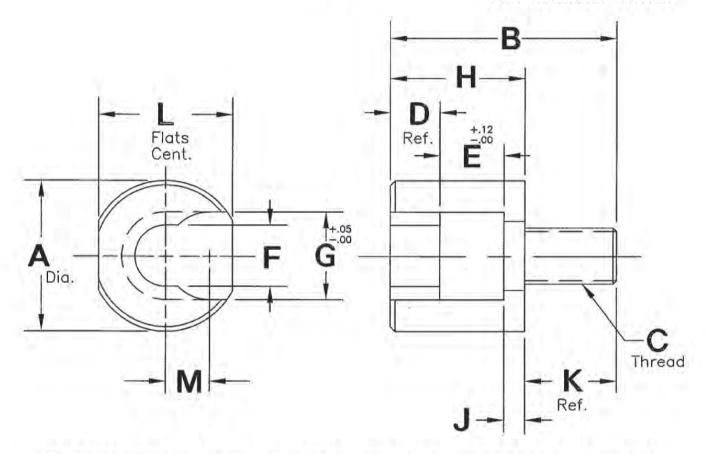
Part No.	Style	A	в	с	D	Ε.	F	G	н	J
MCAF-102R	RAP	20.0	16.0	M10x1.25	25.0	25.0	20.00	32.0	60.0	12.0
MCAF-102N	NON-RAP	20.0	16.0	M10x1.25	25.0	25.0	24.80	32.0	65.0	12.0
MCAF-103R	RAP	20.0	16.0	M12x1.25	25.0	25.0	20.00	32.0	60.0	12.0
MCAF-103N	NON-RAP	20.0	16.0	M12x1.25	25.0	25.0	24.80	32.0	65.0	12.0
MCAF-104R	RAP	25.0	22.0	M14x1.5	32.0	25.0	25.00	40.0	70.0	14.0
MCAF-104N	NON-RAP	25.0	22.0	M14x1.5	32.0	25.0	29.80	40.0	75.0	14.0
MCAF-105R	RAP	25.0	22.0	M16x1.5	32.0	25.0	25.00	40.0	70.0	14.0
MCAF-105N	NON-RAP	25.0	22.0	M16x1.5	32.0	25.0	29.80	40.0	75.0	14.0
MCAF-107R	RAP	35.0	32.0	M20x1.5	40.0	45.0	25.00	55.0	100.0	15.0
MCAF-107N	NON-RAP	35.0	32.0	M20x1.5	40.0	45.0	29.80	55.0	105.0	15.0
MCAF-109R	RAP	45.0	38.0	M27x2	55.0	65.0	30.00	63.0	115.0	14.0
MCAF-109N	NON-RAP	45.0	38.0	M27×2	55.0	65.0	34.80	63.0	120.0	14.0
MCAF-110R	RAP	45.0	38.0	M33x2	48.0	65.0	30.00	63.0	115.0	14.0
MCAF-110N	NON-RAP	45.0	38.0	M33x2	48.0	65.0	34.80	63.0	120.0	14.0

Material: 12L14 Heat Treat: Carb. & Hdn., Rock. "C" 45–50, .06 min. case Finish: Black Oxide

METRIC CYLINDER COUPLER ADAPTER

Туре МССА

SEE PAGE G-2 FOR ASSEMBLY MATRIX



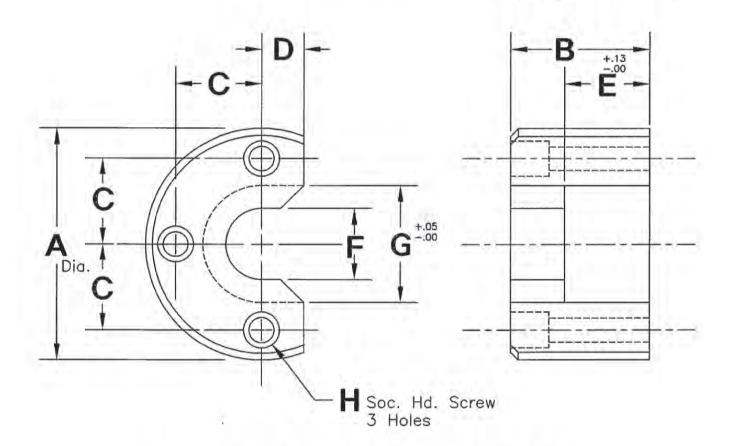
Part No.	Α	В	C	D	E	F	G	н	J	ĸ	L I	M
MCCA-101	30.0	41.0	M8x1.0	8.0	10.00	10.0	16.00	26.0	8.0	15.0	24.0	8.5
MCCA-102	40.0	57.0	M10x1.25	12.0	20.00	14.0	24.00	42.0	10.0	15.0	32.0	12.0
MCCA-103	40.0	60.0	M12x1.25	12.0	20.00	14.0	24.00	42.0	10.0	18.0	32.0	12.0
MCCA-104	50.0	75.0	M14x1.5	20.0	25.00	22.0	35.00	55.0	10.0	20.0	45.0	17.5
MCCA-105	50.0	75.0	M16x1.5	20.0	25.00	22.0	35.00	55.0	10.0	20.0	45.0	17.5
MCCA-106	50.0	80.0	M18x1.5	20.0	25.00	22.0	35.00	55.0	10.0	25.0	45.0	17.5
MCCA-107	50.0	80.0	M20x1.5	20.0	25.00	22.0	35.00	55.0	10.0	25.0	45.0	17.5
MCCA-108	70.0	95.0	M24x2.0	20.0	30.00	27.0	42.00	60.0	10.0	35.0	60.0	21.0
MCCA-109	70.0	95.0	M27x2.0	20.0	30.00	27.0	42.00	60.0	10.0	35.0	60.0	21.0
MCCA-110	100.0	120.0	M30x2.0	30.0	30.00	37.0	57.00	80.0	20.0	40.0	80.0	28.5
MCCA-111	100.0	120.0	M33x2.0	30.0	30.00	37.0	57.00	80.0	20.0	45.0	80.0	28.5

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide

METRIC HOUSING

Type MHSN

SEE PAGE G-2 FOR ASSEMBLY MATRIX



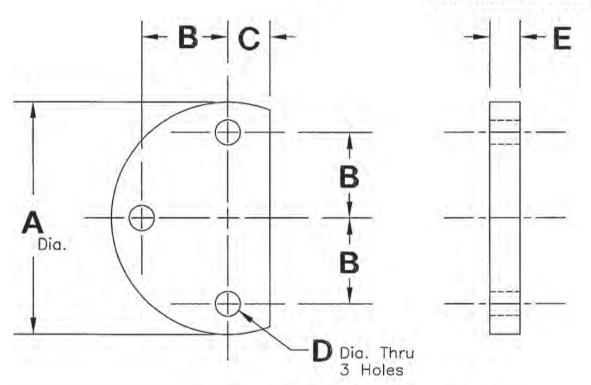
Part No.	A	В	C	D	E	F	G	н
MHSN-101	60.0	32.0	20.00	10.0	20.00	14.0	24.00	M8
MHSN-102	75.0	45.0	25.00	12.0	25.00	22.0	35.00	M10
MHSN-103	90.0	50.0	30.00	15.0	30.00	27.0	42.00	M12
MHSN-104	120.0	60.0	40.00	20.0	30.00	37.0	57.00	M14
MHSN-107	150.0	65.0	50.00	20.0	35.00	47.0	65.00	M20
MHSN-108	160.0	70.0	55.00	25.0	40.00	52.0	72.00	M24

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide

METRIC BACKPLATE

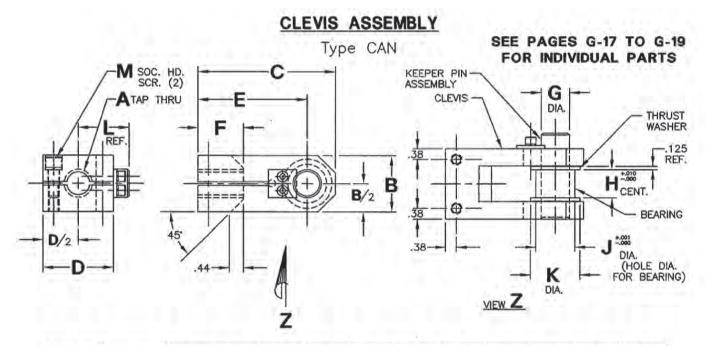
Type MBPL

SEE PAGE G-2 FOR ASSEMBLY MATRIX



Part No.	Α	в	С	D	E
MBPL-101	60.0	20.00	10.0	9.0	6.0
MBPL-102	75.0	25.00	12.0	11.0	6.0
MBPL-103	90.0	30.00	15.0	13.0	8.0
MBPL-104	120.0	40.00	20.0	15.0	8.0
MBPL-107	150.0	50.00	20.0	21.0	10.0
MBPL-108	160.0	55.00	25.0	25.0	10.0

Material: 12L14 C.R.S. Heat Treat: Carb. and Hdn., Rock "C" 45-50, .06 Min. Case. Finish: Black Oxide



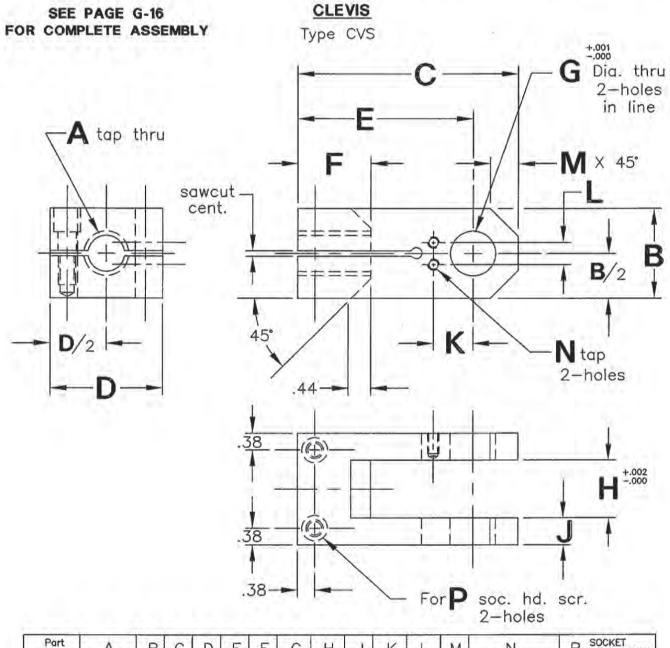
Part No.	A	в	С	D	E	F	G	н	J	к	- C -	м
CAN-101	5/16-24	1.25	2.62	1.50	2.12	.88	.38	.515	.500	.75	1.21	.25
CAN-102	7/16-20	1.50	3.00	2.00	2.25	.75	.62	.765	.812	1.25	1.50	.31
CAN-103	1/2-20	1.50	3.00	2.00	2.25	.75	.62	.765	.812	1.25	1.50	.31
CAN-104	3/4-16	2.00	4.38	2.50	3.38	1.12	.75	1.015	1.000	1.38	1.75	.38
CAN-105	7/8-14	2.00	4.88	2.50	3.88	1.62	1.00	1.015	1.375	1.75	1.81	.38
CAN-106	1-14	2.00	4.88	2.50	3.88	1.62	1.00	1.015	1.375	1.75	1.81	.38
CAN-107	1 1/4-12	3.00	7.00	3.00	5.62	2.25	1.38	1.265	1.750	1.94	2.25	.38
CAN-108	1 1/2-12	3.00	7.00	3.00	5.62	2.25	1.38	1.265	1.750	1.94	2.25	.38
CAN-109	1 3/4-12	3.00	7.50	4.50	6.00	2.25	1.50	2.265	1.875	2.50	3.00	.38
CAN-110	1 7/8-12	3.00	8.50	4.50	7.00	3.25	1.50	2.265	1.875	2.50	3.00	.38

Part No.	CLEVIS	KEEPER PIN ASSEMBLY	THRUST WASHER	BEARING
CAN-101	CVS-101	KPH375-1.50-2K-11	CTW-101	CBG-101
CAN-102	CVS-102	KPH625-2,00-2K-11	CTW-102	CBG-102
CAN-103	CVS-103	KPH625-2.00-2K-11	CTW-102	CBG-102
CAN-104	CVS-104	KPH750-2.50-2K-11	CTW-103	CBG-103
CAN-105	CVS-105	KPH-1.000-2.50-2K-11	CTW-104	CBG-104
CAN-106	CVS-106	KPH-1.000-2.50-2K-11	CTW-104	CBG-104
CAN-107	CVS-107	KPHH-1.375-3.00	CTW-105	CBG-105
CAN-108	CVS-108	KPHH-1.375-3.00	CTW-105	CBG-105
CAN-109	CVS-109	KPHH-1.500-4.50	CTW-106	CBG-106
CAN-110	CVS-110	KPHH-1.500-4.50	CTW-106	CBG-106

Each Clevis Assembly Includes

- (1) Clevis
- (1) Hardened Keeper Pin With Keeper and Mounting Screws
- (1) Hardened Bearing (SAE-863 or SO-16)
- (2) Thrust Washer
- (2) Socket Head Screws With Hi- Coller Lockwashers

FINISH: Black Oxide (Clevis Only)



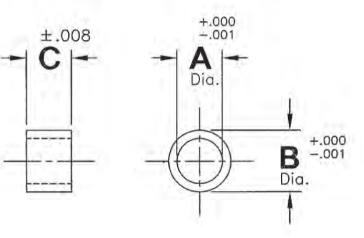
Part No.	A	В	С	D	Ε	F	G	н	J	K	L	М	N	P HEAD SCREW
CVS-101	5/16-24	1.25	2.62	1.50	2.12	.88	.376	.780	.36	.437	.500	.38	1/4-20 THRU	1/4-20 x 3/4
CVS-102	7/16-20	1.50	3.00	2.00	2.25	.75	.626	1.030	.49	.562	.500	.50	1/4-20 THRU	5/16-18 x 7/8
CVS-103	1/2-20	1.50	3.00	2.00	2.25	.75	.626	1.030	.49	.562	.500	.50	1/4-20 THRU	5/16-18 x 7/8
CVS-104	3/4-16	2.00	4.38	2.50	3.38	1.12	.751	1.280	.61	.625	.500	.62	1/4-20 x 1/2	3/8-16 x 1 1/4
CVS-105	7/8-14	2.00	4.88	2.50	3.88	1.62	1.001	1.280	.61	.750	.500	.62	1/4-20 x 1/2	3/8-16 x 1 1/4
CVS-106	1-14	2.00	4.88	2.50	3.88	1.62	1.001	1.280	.61	.750	.500	.62	1/4-20 x 1/2	3/8-16 x 1 1/4
CVS-107	1 1/4-12	3.00	7.00	3.00	5.62	2.25	1.376	1.530	.74	1.063	.750	.75	3/8-16 THRU	3/8-16 x 1 3/4
CVS-108	1 1/2-12	3.00	7.00	3.00	5.62	2.25	1.376	1.530	.74	1.063	.750	.75	3/8-16 THRU	3/8-16 x 1 3/4
CVS-109	1 3/4-12	3.00	7.50	4.50	6.00	2.25	1.501	2.530	.99	1.125	.750	.75	3/8-16 x 3/4	3/8-16 x 1 3/4
CVS-110	1 7/8-12	3.00	8.50	4.50	7.00	3.25	1.501	2.530	.99	1.125	.750	.75	3/8-16 x 3/4	3/8-16 x 1 3/4

Material: 1020 H.R.S. Finish: Black oxide

BEARING

Type CBG

SEE PAGE G-16 FOR COMPLETE ASSEMBLY



Part No.	A	в	c
CBG-101	.378	.503	.500
CBG-102	.630	.815	.750
CBG-103	.755	1.003	.940
CBG-104	1.005	1.378	1.000
CBG-105	1.380	1.753	1.250
CBG-106	1.505	1.878	2.250

COMPOSITION: (percent)	SAE 863 (CBG-101 & 102 ONLY)	SO-16 (ALL OTHERS)
COPPER	18.0 - 22.0	18.0 - 22.0
IRON	BALANCE	BALANCE
CARBON	-1	0.6 - 1.0
TIN	÷.	물건 이 가지?
OTHER ELEMENTS	2.0	2.0

Material:

CBG-101 & 102 - Sintered Bronze SAE 863 All Others - SO-16 Hardened Bearing

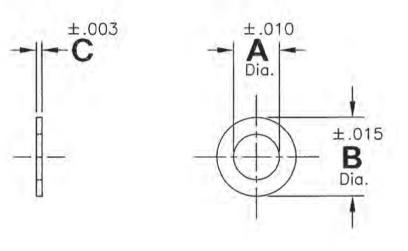
Notes:

- Recommended hole size for press fit: Nominal +.001/-.000
- Not to be used with additional lubrication.
- Concentricity (I.D. with respect to 0.D.) CBG-101 to CBG-106 ±.003 T.I.R.

THRUSTWASHER

Type CTW

SEE PAGE G-16 FOR COMPLETE ASSEMBLY



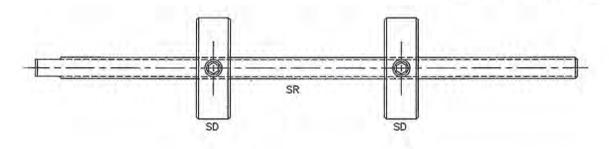
Part No.	A	в	C
CTW-101	.380	.750	.125
CTW-102	.628	1.250	.125
CTW-103	.753	1.375	.125
CTW-104	1.012	1.750	.125
CTW-105	1.379	1.940	.125
CTW-106	1.505	2.505	.125

COMPOSITION: (percent)	SAE 863
COPPER	18.0 - 22.0
IRON	BALANCE
CARBON	a second
TIN	-
OTHER ELEMENTS	2.0

Material: Sintered bronze (SAE 863)

SWITCH DOG ASSEMBLY & METRIC SWITCH DOG ASSEMBLY MATRIX

SEE PAGES G-21 TO G-22 FOR INDIVIDUAL PARTS



INCH

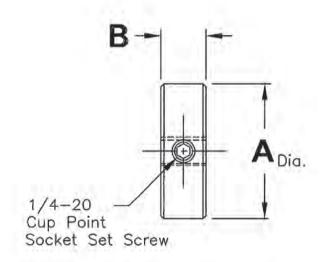
METRIC

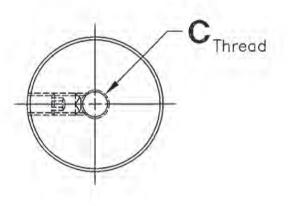
Cylin	der Inform	ation	Switch Dog	Culture Dest	Cyline	der Informe	ation	Switch Doo	Quitals Ded
Bore & Type	Rod Dia.	Thread Size	Switch Dog	Switch Rod	Bore & Type	Rod Dia.	Thread Size	Switch Dog	Switch Rod
1"-AIR	1/2	5/16-24	SD-101	SR-101-X	25mm-HYD	12.0	M8x1.0	MSD-101	MSR-101->
1"-AIR	5/8	7/16-20	SD-102	SR-102-X	25mm-HYD	18.0	M12x1.25	MSD-103	MSR-103-X
1 1/2-AIR	5/8	7/16-20	SD-102	SR-102-X	32mm-AIR	12.0	M8x1.0	MSD-101	MSR-101-X
1 1/2-AIR	1	3/4-16	SD-103	SR-103-X	32mm-HYD	14.0	M10x1.25	MSD-102	MSR-102-X
1 1/2-HYD	5/8	7/16-20	SD-102	SR-102-X	32mm-HYD	22.0	M16x1.5	MSD-105	MSR-105->
1 1/2-HYD	1	3/4-16	SD-103	SR-103-X	40mm-AIR	16.0	M10x1.25	MSD-102	MSR-102-X
2"-AIR	5/8	7/16-20	SD-102	SR-102-X	40mm-HYD	18.0	M12x1.25	MSD-103	MSR-103-X
2"-AIR	1	3/4-16	SD-103	SR-103-X	40mm-HYD	28.0	M20x1.5	MSD-107	MSR-107-X
2"-HYD	1	3/4-16	SD-103	SR-103-X	50mm-AIR	20.0	M14x1.5	MSD-104	MSR-104->
2"-HYD	1 3/8	1-14	SD-104	SR-104-X	50mm-HYD	22.0	M16x1.5	MSD-105	MSR-105-)
2 1/2-AIR	5/8	7/16-20	SD-102	SR-102-X	50mm-HYD	28.0	M20x1.5	MSD-107	MSR-107->
2 1/2-AIR	1	3/4-16	SD-103	SR-103-X	50mm-HYD	36.0	M27x2.0	MSD-109	MSR-109->
2 1/2-AIR	1 3/8	1-14	SD-104	SR-104-X	63mm-AIR	20.0	M14x1.5	MSD-104	MSR-104->
2 1/2-HYD	1	3/4-16	SD-103	SR-103-X	63mm-HYD	28.0	M20x1.5	MSD-107	MSR-107->
2 1/2-HYD	1 3/8	1-14	SD-104	SR-104-X	63mm-HYD	36.0	M27x2.0	MSD-109	MSR-109->
3 1/4-AIR	1	3/4-16	SD-103	SR-103-X	80mm-AIR	25.0	M18x1.5	MSD-106	MSR-106->
3 1/4-AIR	1 3/8	1-14	SD-104	SR-104-X	80mm-HYD	36.0	M27x2.0	MSD-109	MSR-109->
3 1/4-HYD	1 3/8	1-14	SD-104	SR-104-X	100mm-AIR	25.0	M18x1.5	MSD-106	MSR-106->
4"-AIR	1	3/4-16	SD-103	SR-103-X	125mm-AIR	32.0	M24x2.0	MSD-108	MSR-108->
4"-AIR	1 3/8	1-14	SD-104	SR-104-X					
5"-AIR	1	3/4-16	SD-103	SR-103-X					
5"-AIR	1 3/8	1-14	SD-104	SR-104-X					
6"-AIR	1 3/8	1-14	SD-104	SR-104-X	1				

SWITCH DOG & METRIC SWITCH DAG

SEE PAGE G-20 FOR ASSEMBLY MATRIX

Type SD & MSD





é		
	\sim	
1 MJ	- C	-
	С	п.

Part No.	A	в	С
SD-101	1.50	.50	5/16-24
SD-102	2.00	.62	7/16-20
SD-103	2.50	.62	3/4-16
SD-104	3.00	.62	1"-14

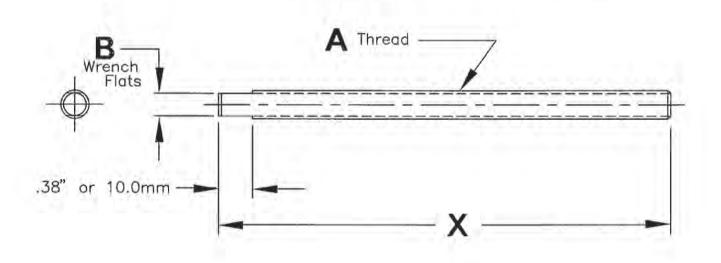
METRIC						
Part No.	A	в	c			
MSD-101	38.0	13.0	M8x1.0			
MSD-102	50.0	16.0	M10x1.25			
MSD-103	50.0	16.0	M12x1.25			
MSD-104	63.0	16.0	M14x1.5			
MSD-105	63.0	16.0	M16x1.5			
MSD-106	63.0	16.0	M18x1.5			
MSD-107	63.0	16.0	M20x1.5			
MSD-108	75.0	16.0	M24x2.0			
MSD-109	75.0	16.0	M27x2.0			

Material: 1018 C.R.S. Heat Treat: NONE. Finish: Black Oxide Cup Point Socket Set Screw included.

SWITCH ROD & METRIC SWITCH ROD

SEE PAGE G-20 FOR ASSEMBLY MATRIX

Type SR & MSR



INCH

ME	Т	RI	С

Part No.	A Thread	В
SR-101	5/16-24	.25
SR-102	7/16-20	.31
SR-103	3/4-16	.50
SR-104	1"-14	.75

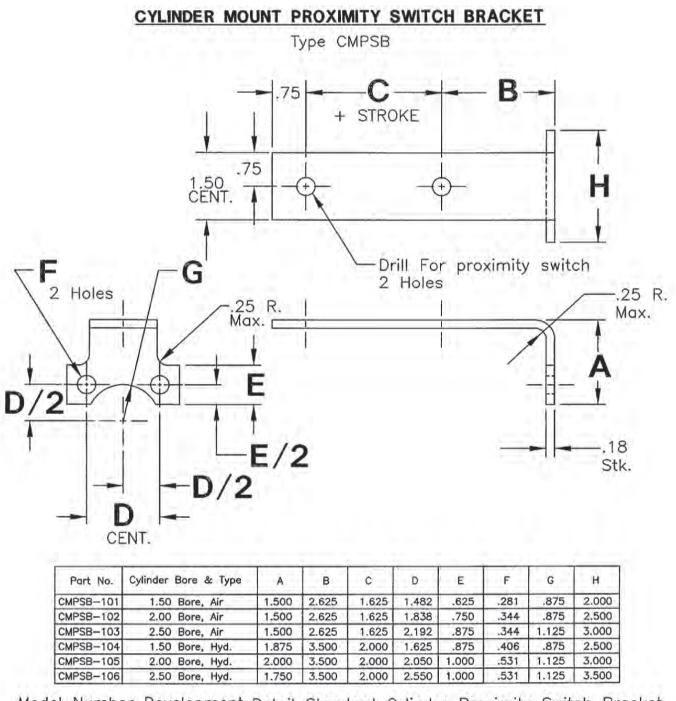
Available 5" thru 12" in 1" Increments

Part No.	A Thread	В
MSR-101	M8x1	5.0
MSR-102	M10x1.25	6.0
MSR-103	M12x1.25	8.0
MSR-104	M14x1.5	10.0
MSR-105	M16x1.5	12.0
MSR-106	M18x1.5	14.0
MSR-107	M20x1.5	16.0
MSR-108	M24x2.0	20.0
MSR-109	M27x2.0	22.0

Available 130.0 thru 300.0 in 10.0mm Increments

Material: Alloy Steel (Stud Stock) ASTM Spec. A-193 Heat Treat: Brinell 275-310 Stress Relieved Finish: Black Oxide

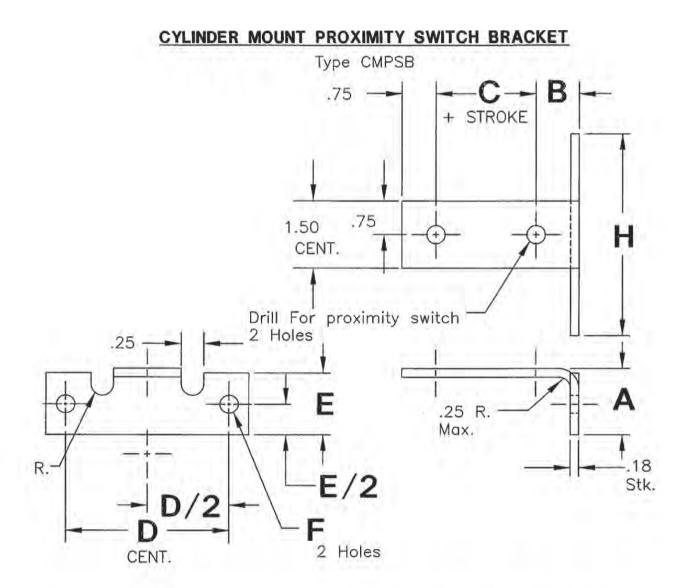
Model Number	Development	Detail	Standard	Switch	Rod
Part No.		<u>SR-10</u>	<u>1-x</u>		
x Inread			A		



Model Number Development Detail Standard Cylinder Proximity Switch Bracket

Dart Number		01	100 101	2.00	
Part Number — Cylinder Stroke —					
Proximity Switch	Size ——	-			
Aaterial ———					

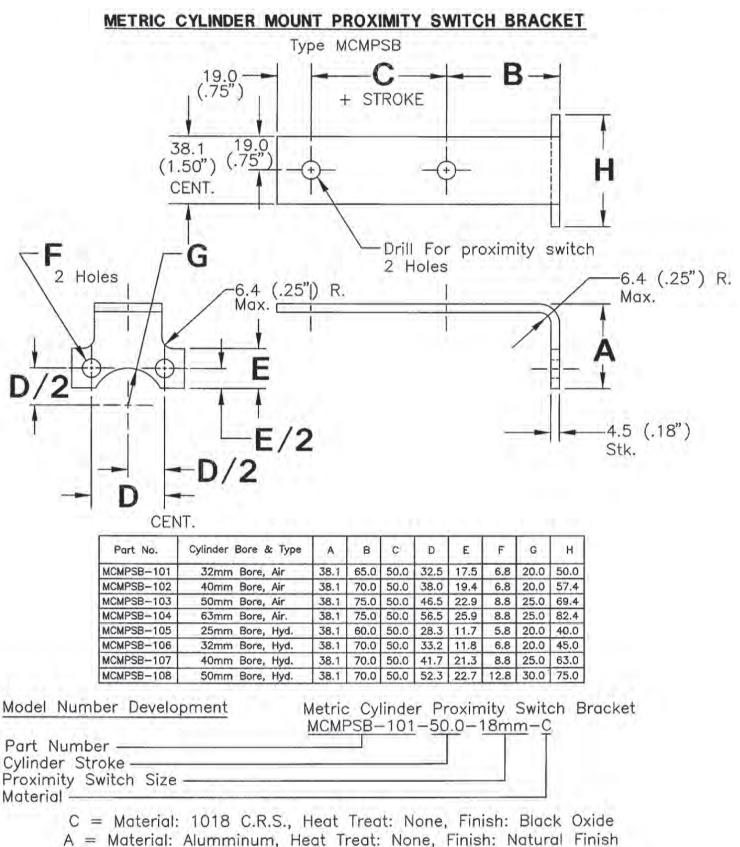
C = Material: 1018 C.R.S., Heat Treat: None, Finish: Black Oxide A = Material: Alumminum, Heat Treat: None, Finish: Natural Finish

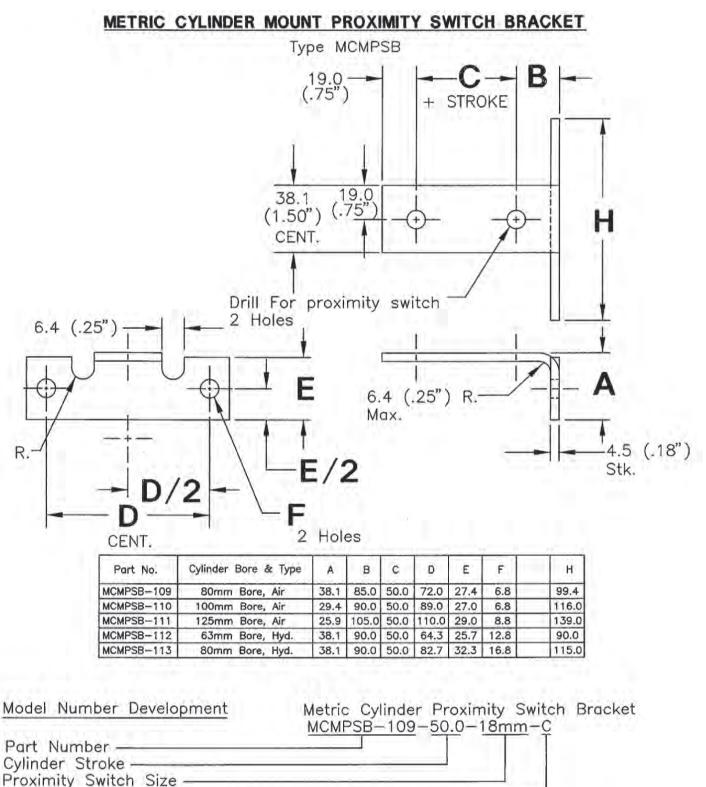


Part No.	Cylinder Bore & Type	A.	в	с	D	E	F	H
CMPSB-107	3.25 Bore, Air	1.375	3.500	2.000	2.758	1.000	.438	3.750
CMPSB-108	4.00 Bore, Air	1.188	3.500	2.000	3.323	1.188	.438	4.500
CMPSB-109	3.25 Bore, Hyd.	1.500	3.500	2.000	3.250	1.250	.656	4.500

Model Number Development	Metric Cylinder Proximity Switch Bracket CMPSB-109-50.0-18mm-C
Part Number Cylinder Stroke Proximity Switch Size	
Material	D.C. Hard Territo News Ciriste Directo Ovide

C = Material: 1018 C.R.S., Heat Treat: None, Finish: Black Oxide A = Material: Alumminum, Heat Treat: None, Finish: Natural Finish

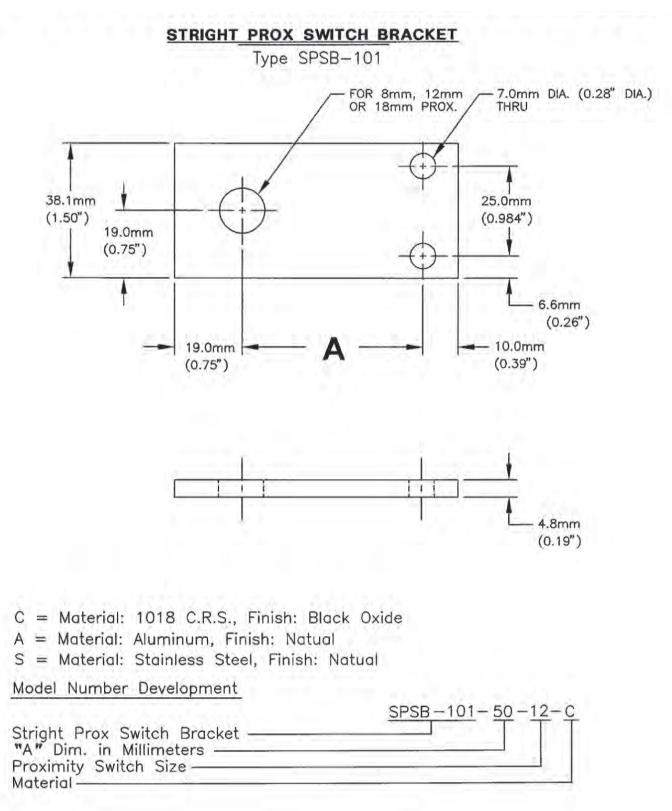


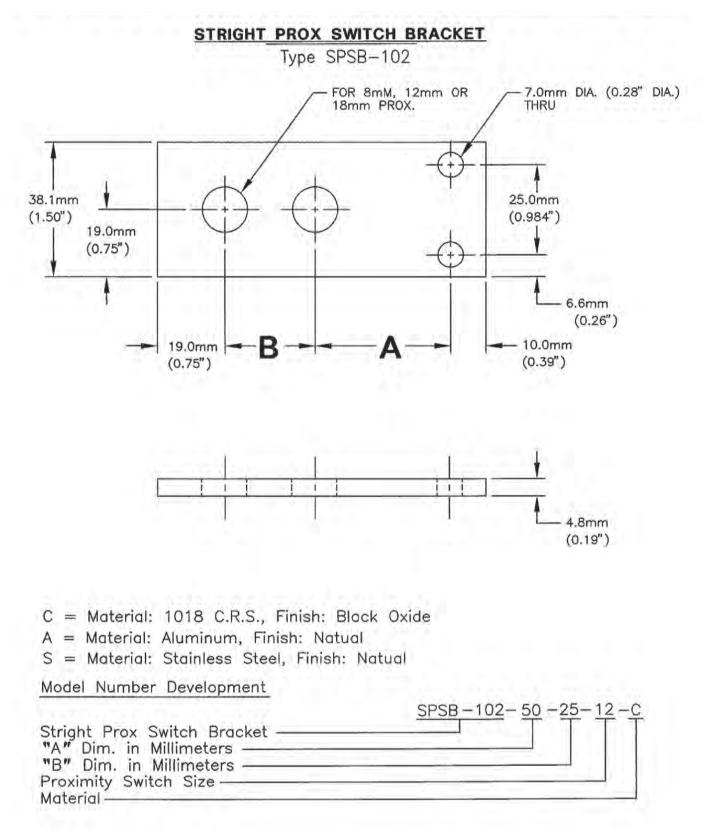


Material -

C = Material: 1018 C.R.S., Heat Treat: None, Finish: Black Oxide

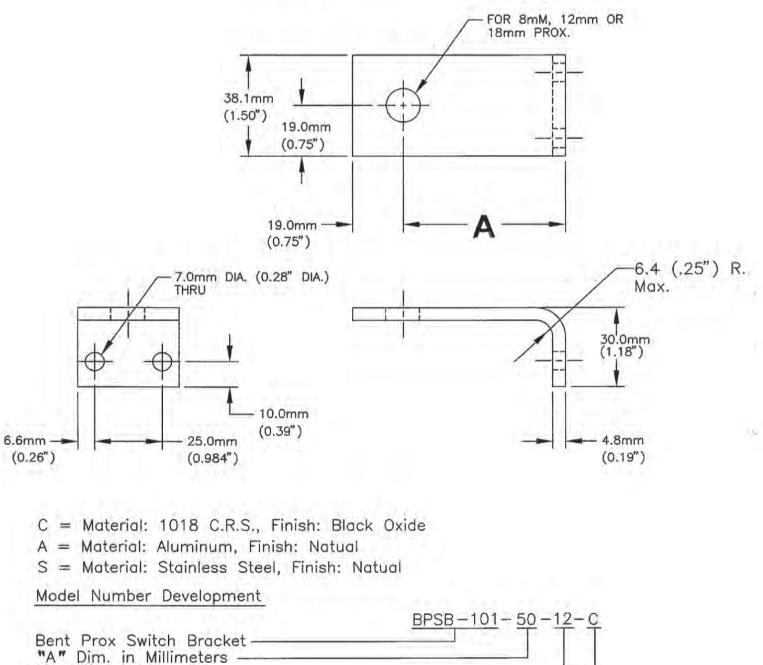
A = Material: Alumminum, Heat Treat: None, Finish: Natural Finish







Type BPSB-101

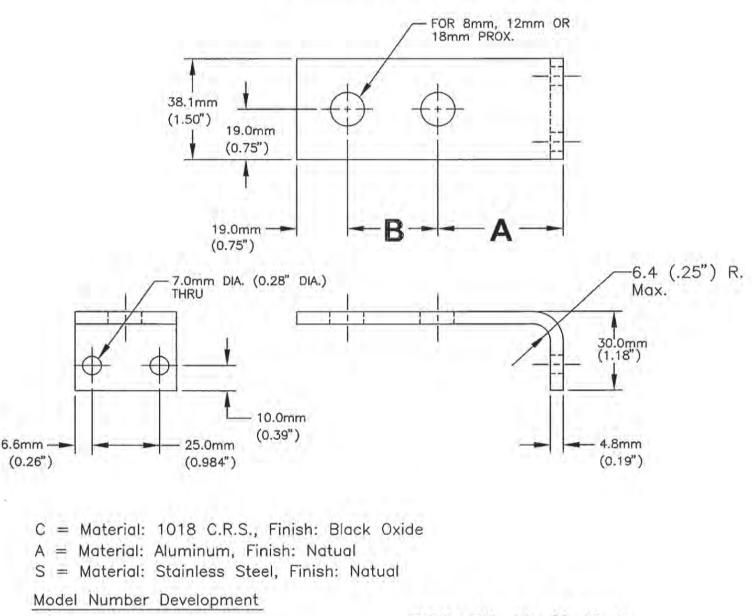


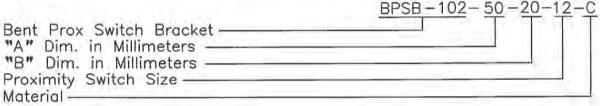
Proximity Switch Size -

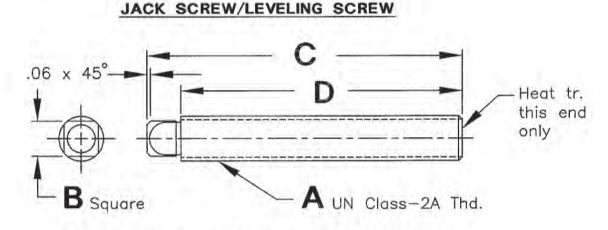
Material —



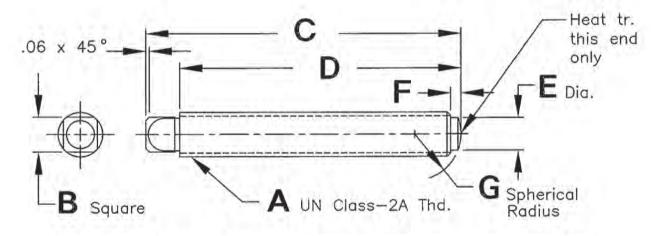
Type BPSB-102





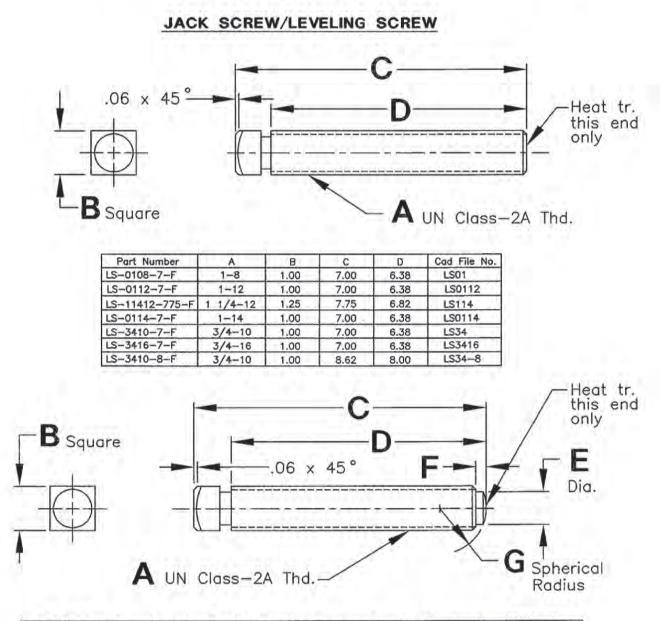


Part Number	A	В	C	D	Cad File No.
JS-3410-757	3/4-10	.53	7.57	7.00	JS34
JS-0108-775	1-8	.71	7.75	7.00	JS01
JS-11412-794	1 1/4-12	.88	7.94	7.00	JS114
JS-11212-812	1 1/2-12	1.06	8.12	6.50	JS112



Part Number	A	В	C	D	E	F	G	Cad File No.
JS-3410-706-R	3/4-10	.53	7.06	6.50	.58	.18	.56	JS34R
JS-0108-725-R	1-8	.71	7.25	6.50	.82	.26	.75	JS01R
JS-11412-744-R	1 1/4-12	.88	7.44	6.50	1.12	.28	.94	JS114R
JS-11212-762-R	1 1/2-12	1.06	7.62	6.50	1.25	.38	1.12	JS112R

Material: 11L17 Heat treat as shown: Carb. & Hdn. Rock."C" 48-52,.03 Min. Case Finish: Black Oxide

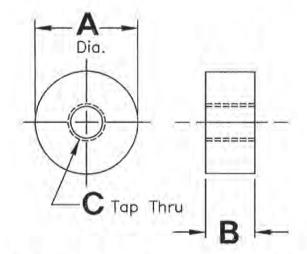


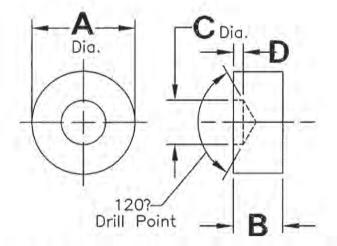
Part Number	A	В	C	D	E	F	G	Cad File No.
LS-0108-7-R	1-8	1.00	7.00	6.38	.82	.26	1.00	LS01R
LS-0112-7-R	1-12	1.00	7.00	6.38	.82	.26	1.00	LS0112R
LS-11412-775-R	1 1/4-12	1.25	7.75	6.82	1.12	.28	1.00	LS114R
LS-0114-7-R	1-14	1.00	7.00	6.38	.82	.26	1.00	LS0114R
LS-3410-7-R	3/4-10	1.00	7.00	6.38	.58	.26	1.00	LS34R
LS-3416-7-R	3/4-16	1.00	7.00	6.38	.58	.26	1.00	LS3416R
LS-3410-8-R	3/4-10	1.00	8.62	8.00	.58	.26	1.00	LS34-8R

Material: 11L17

Heat treat as shown: Carb. & Hdn. Rock."C" 48-52,.03 Min. Case Finish: Black Oxide

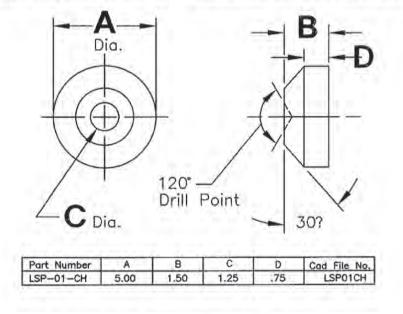
LEVELING SCREW PADS





Part Number	Α	B	C	Cad File No.
LSP-01-T	2.50	1.50	3/4-10	LSP01T
LSP-02-T	2.50	1,50	1-8	LSP02T
LSP-03-T	3.00	1.50	1 1/4-12	LSP03T
LSP-04-T	3.50	1.50	1 1/2-12	LSP04T

Part Number	A	B	C	D	Cad File No.
LSP-01-H	2.50	1.50	.88	.25	LSP01H
LSP-02-H	2.50	1.50	1.12	.25	LSP02H
LSP-03-H	3.00	1.50	1.38	.25	LSP03H
LSP-04-H	3.50	1.50	1.62	.25	LSP04H



Material: Steel Finish: Black Oxide

HOLD DOWN/LEVELING SCREW ASSEMBLY Type HL & MHL M30x3.5 Thd. 1 1/4-7 Thd. Floor Pad Leveling Screw (See Chart) (See Chart) Jam Nut Floor Line or Machine Floor Plate 1.38 - M16x2.0 Base Foot 5/8-11-Hex. Hex. Hd. Scr. 1.59 Ref. B .75 Typ. Sq.

Metric Part Number	English Part Number	A	В	С	D	Floor Pad	Leveling Screw	CAD FILE NO.
MHL-76-102	HL-3-4	3.00	1.50	4.00	1.00	STP-12	HLB-4-C	HL34
	HL-3A-4	3.00	1.50	4.00	1.25	STP-13	HLB-4-C	HL3A4
MHL-102-102	HL-4-4	4.00	2.00	4.00	1.00	STP-14	HLB-4-C	HL44
	HL-4A-4	4.00	2.00	4.00	1.25	STP-15	HLB-4-C	HL4A4
MHL-76-127	HL-3-5	3.00	1.50	5.00	1.00	STP-12	HLB-5-C	HL35
have seen a second	HL-3A-5	3.00	1.50	5.00	1.25	STP-13	HLB-5-C	HL3A5
MHL-102-127	HL-4-5	4.00	2.00	5.00	1.00	STP-14	HLB-5-C	HL45
	HL-4A-5	4.00	2.00	5.00	1.25	STP-15	HLB-5-C	HL4A5
MHL-76-152	HL-3-6	3.00	1.50	6.00	1.00	STP-12	HLB-6-C	HL36
And the state of the second second	HL-3A-6	3.00	1.50	6.00	1.25	STP-13	HLB-6-C	HL3A6
MHL-102-152	HL-4-6	4.00	2.00	6.00	1.00	STP-14	HLB-6-C	HL46
	HL-4A-6	4.00	2.00	6.00	1.25	STP-15	HLB-6-C	HL4A6

Each Hold Down/Leveling Screw Assy. Includes:

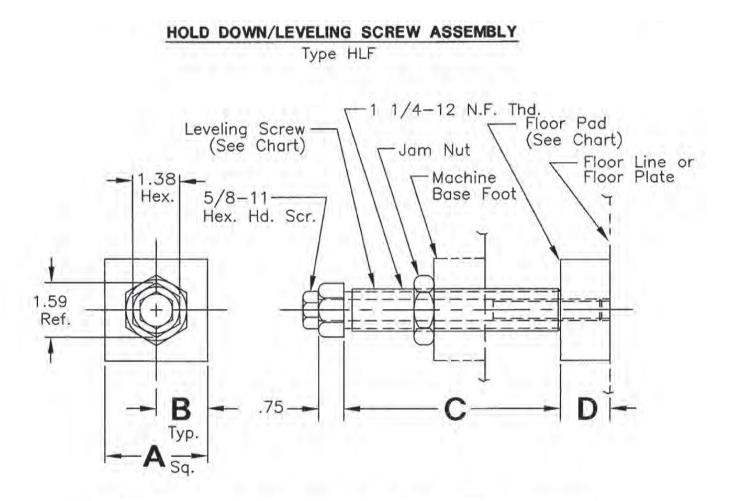
(1) Leveling Bolt

- (1) Hold Down Screw
- (1) Floor Pad
- (1) Jam Nut

Material: Steel

Finish: Black Oxide

Note: All Dimensions for Metric are the Same as English Accept as Noted.



Part Number	A	В	C	D	Floor Pad	Leveling Screw	CAD FILE NO.
HLF-3-4	3.00	1.50	4.00	1.00	STP-12	HLB-4-F	HLF34
HLF-3A-4	3.00	1.50	4.00	1.25	STP-13	HLB-4-F	HLF3A4
HLF-4-4	4.00	2.00	4.00	1.00	STP-14	HLB-4-F	HLF44
HLF-4A-4	4.00	2.00	4.00	1.25	STP-15	HLB-4-F	HLF4A4
HLF-3-5	3.00	1.50	5.00	1.00	STP-12	HLB-5-F	HLF35
HLF-3A-5	3.00	1.50	5.00	1.25	STP-13	HLB-5-F	HLF3A5
HLF-4-5	4.00	2.00	5.00	1.00	STP-14	HLB-5-F	HLF45
HLF-4A-5	4.00	2.00	5.00	1.25	STP-15	HLB-5-F	HLF4A5
HLF-3-6	3.00	1.50	6.00	1.00	STP-12	HLB-6-F	HLF36
HLF-3A-6	3.00	1.50	6.00	1.25	STP-13	HLB-6-F	HLF3A6
HLF-4-6	4.00	2.00	6.00	1.00	STP-14	HLB-6-F	HLF46
HLF-4A-6	4.00	2.00	6.00	1.25	STP-15	HLB-6-F	HLF4A6

Each Hold Down/Leveling Screw Assy. Includes:

- (1) Leveling Bolt
- (1) Hold Down Screw
- (1) Floor Pad
- (1) Jam Nut

Material: Steel Finish: Black Oxide

HOLD DOWN/LEVELING SCREW ASSEMBLY CROSS REFERANCE MATREX

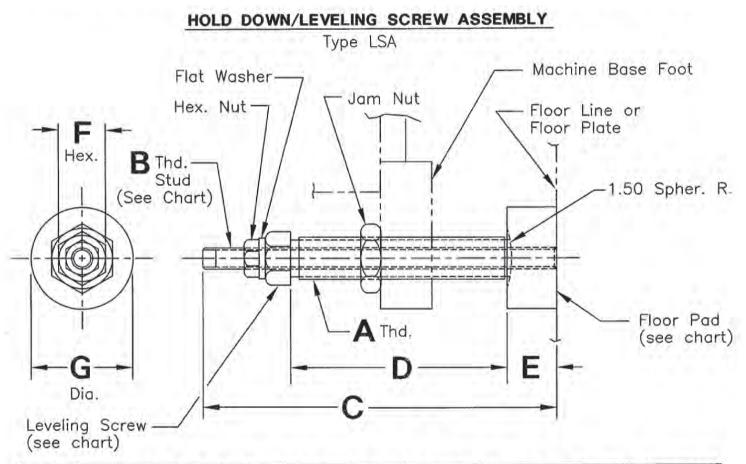
INCH

Detail Standard Compan	y E & E Special Products
LSA-1-2	ELJ-7502-AM
LSA-2-3.1	ELJ-1003-AM
LSA-3-3	ELJ-1123-AM
LSA-3-5	ELJ-1125-AM
LSA-7-3	ELJ-1503-AM
LSA-4-5	ELJ-1505-AM
LS-2015-50	ELJ-7502-A
LS-2025-50	ELJ-1003-A
LS-2420-75	ELJ1123A
LS-2430-75	ELJ-1125-A
LS-3020-100	ELJ-1503-A
LS-3035-100	ELJ-1505-A

METRIC

Detail Standard Company	E & E Special Products
MLSA-2015-50	EMLJ-2050-FAM
MLSA-2025-50	EMLJ-2050-CAM
MLSA-2420-75	EMLJ-2475-FAM
MLSA-2430-75	EMLJ-2475-CAM
MLSA-3020-100	EMLJ-3010-FAM
MLSA-3035-100	EMLJ-3010-CAM
MLSA-3020-150	EMLJ-3015-FAM
MLSA-3035-150	EMLJ-3015-CAM
MLSA-3630-100	EMLJ-3610-FAM
MLSA-3640-100	EMLJ-3610-CAM
MLSA-3630-150	EMLJ-3615-FAM
MLSA-3640-150	EMLJ-3615-CAM
MLSA-3930-100	EMLJ-3910-FAM
MLSA-3940-100	EMLJ-3910-CAM
MLSA-3930-150	EMLJ-3915-FAM
MLSA-3940-150	EMLJ-3915-CAM
MLS-2015-50	EMLJ-2050-FA
MLS-2025-50	EMLJ-2050-CA
MLS-2420-75	EMLJ-2475-FA
MLS-2430-75	EMLJ-2475-CA
MLS-3020-100	EMLJ-3010-FA
MLS-3035-100	EMLJ-3010-CA
MLS-3020-150	EMLJ-3015-FA
MLS-3035-150	EMLJ-3015-CA
MLS-3630-100	EMLJ-3610-FA
MLS-3640-100	EMLJ-3610-CA
MLS-3630-150	EMLJ-3615-FA
MLS-3640-150	EMLJ-3615-CA
MLS-3930-100	EMLJ-3910-FA
MLS-3940-100	EMLJ-3910-CA
MLS-3930-150	EMLJ-3915-FA
MLS-3940-150	EMLJ-3915-CA

NOTE: All Dimensions are from E & E Special Products Catalog Pages D-3 & E-39.

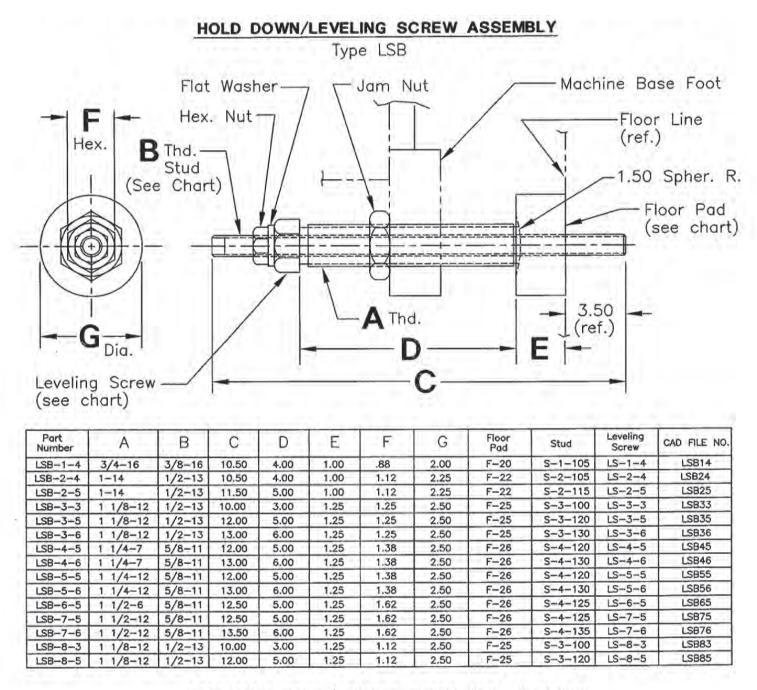


Part Number	А	В	С	D	E	F	G	Floor Pad	Stud	Leveling Screw	CAD FILE NO.
LSA-1-4	3/4-16	3/8-16	7.00	4.00	1.00	.88	2.00	F-20	S-1-70	LS-1-4	LSA14
LSA-2-4	1-14	1/2-13	7.00	4.00	1.00	1.12	2.25	F-22	S-2-70	LS-2-4	LSA24
LSA-2-5	1-14	1/2-13	8.00	5.00	1.00	1.12	2.25	F-22	S-2-80	LS-2-5	LSA25
LSA-3-5	1 1/8-12	1/2-13	8.50	5.00	1.25	1.25	2.50	F-25	S-3-85	LS-3-5	LSA35
LSA-3-6	1 1/8-12	1/2-13	9.50	6.00	1.25	1.25	2.50	F-25	S-3-95	LS-3-6	LSA36
LSA-4-5	1 1/4-7	5/8-11	8.50	5.00	1.25	1.38	2.50	F-26	S-4-85	LS-4-5	LSA45
LSA-4-6	1 1/4-7	5/8-11	9.50	6.00	1.25	1.38	2.50	F-26	S-4-95	LS-4-6	LSA46
LSA-5-5	1 1/4-12	5/8-11	8.50	5.00	1.25	1.38	2.50	F-26	S-4-85	LS-5-5	LSA55
LSA-5-6	1 1/4-12	5/8-11	9.50	6.00	1.25	1.38	2.50	F-26	S-4-95	LS-5-6	LSA56
LSA-6-5	1 1/2-6	5/8-11	9.00	5.00	1.25	1.62	2.50	F-26	S-4-90	LS-6-5	LSA65
LSA-7-5	1 1/2-12	5/8-11	9.00	5.00	1.25	1.62	2.50	F-26	S-4-90	LS-7-5	LSA75
LSA-7-6	1 1/2-12	5/8-11	10.00	6.00	1.25	1.62	2.50	F-26	S-4-100	LS-7-6	LSA76

Each Hold Down/Leveling Screw Assy. Includes: (1) Leveling Screw (1) Floor Pad

- Stud
- Flat Washer
- Hex. Nut
- Jam Nut

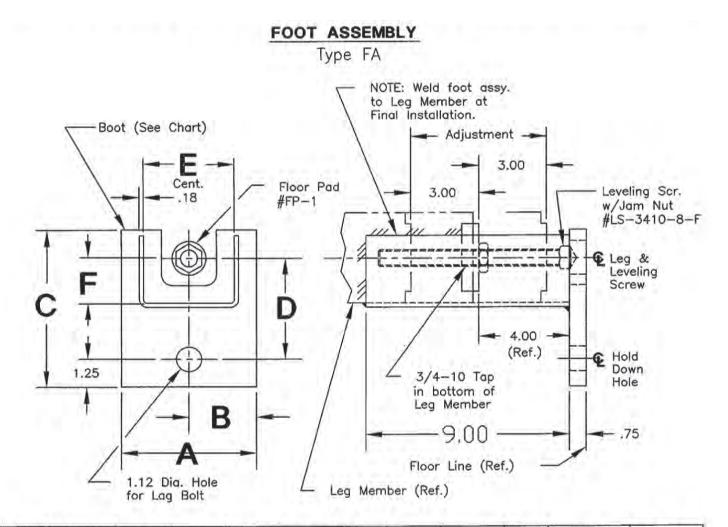
Material: Steel Finish: Black Oxide



Each Hold Down/Leveling Screw Assy. Includes:

- (1) Leveling Screw
- (1) Floor Pad
- 1) Stud
- 1) Flat Washer
- 1) Hex. Nut
- 1) Jam Nut

Material: Steel Finish: Black Oxide

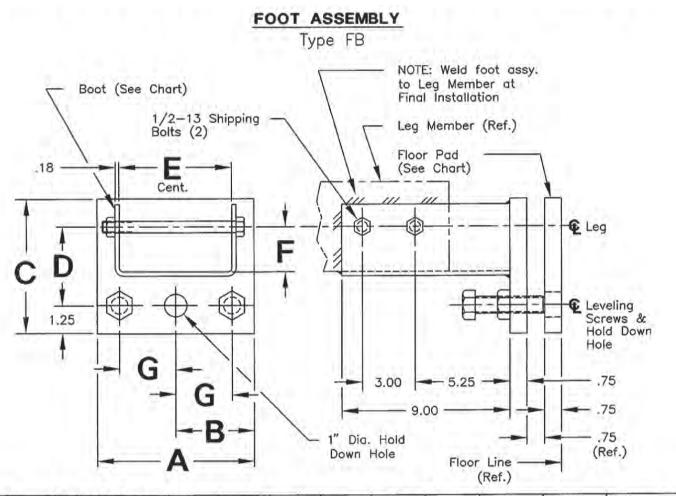


Part No.	Leg Member Size	Α	В	С	D	E	F	Boot	Floor Pad	Leveling Screw	CAD FILE NO.
FA-2-2	2 X 2	3.50	1.75	5.50	3.50	2.03	1.00	B-2-2	FP-1	LS-3410-8-F	FA22
FA-2.5-2.5	21/2×21/2	4.00	2.00	6.00	3.75	2.53	1.25	B-2.5-2.5	FP-1	LS-3410-8-F	FA2525
FA32	3 X 2	5.00	2.50	5.50	3.50	3.03	1.00	B-3-2	FP-1	LS-3410-8-F	FA32
FA-3-3	3 X 3	5.00	2.50	6.50	4.00	3.03	1.50	B-3-3	FP-1	LS-3410-8-F	FA33
FA-4-2	4 X 2	6.00	3.00	5.50	3.50	4.03	1.00	B-4-2	FP-1	LS-3410-8-F	FA42
FA-4-3	4 X 3	6.00	3.00	6.50	4.00	4.03	1.50	B-4-3	FP-1	LS-3410-8-F	FA43
FA-4-4	4 X 4	6.00	3.00	7.00	4.50	4.03	2.00	B-4-4	FP-1	LS-3410-8-F	FA44
FA-6-3	6 X 3	7.50	3.75	6.50	4.00	6.03	1.50	B-6-3	FP-1	LS-3410-8-F	FA63
FA-6-4	6 X 4	7.50	3.75	7.00	4.50	6.03	2.00	B-6-4	FP-1	LS-3410-8-F	FA64
FA-6-6	6 X 6	7.50	3.75	8.00	5.50	6.03	3.00	B-6-6	FP-1	LS-3410-8-F	FA66

Each Foot Assy. Includes:

- (1) Boot Welded Construction
- Floor Pad Steel
 Leveling Screw Assy. with Jam Nut

Finish: None (Cust. to finish as req'd.)



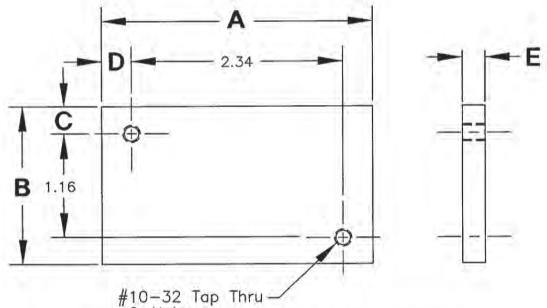
Part No.	Leg Member Size	A	В	С	D	Ε	F	G	Boot	Floor Pad	CAD FILE NO
FB-2-2	2 X 2	6.00	3.00	5.00	2.75	2.03	1.00	2.00	C-2-2	E-6-5	FB22
FB-2.5-2.5	21/2×21/2	6.00	3.00	5.50	3.00	2.53	1.25	2,00	C-2.5-2.5	E-6-5.5	FB2525
FB-3-2	3 X 2	6.00	3.00	5.00	2.75	3.03	1.00	2.00	C-3-2	E-6-5	FB32
FB-3-3	3 X 3	6.00	3.00	6.00	3.25	3.03	1.50	2.00	C-3-3	E-6-6	FB33
FB-4-2	4 X 2	6.00	3.00	5.00	2.75	4.03	1.00	2.00	C-4-2	E-6-5	FB42
FB-4-3	4 X 3	6.00	3.00	6.00	3.25	4.03	1.50	2.00	C-4-3	E-6-6	FB43
FB-4-4	4 X 4	6.00	3.00	6.00	3.75	4.03	2.00	2,00	C-4-4	E-6-6	FB44
FB-6-3	6 X 3	8.00	4.00	6.00	3.25	6.03	1.50	3.00	C-6-3	E-8-6	FB63
FB-6-4	6 X 4	8.00	4.00	6.00	3.75	6.03	2.00	3.00	C-6-4	E-8-6	FB64
FB-6-6	6 X 6	8.00	4.00	7.00	4.75	6.03	3.00	3.00	C-6-6	E-8-7	FB66

Each Foot Assy. Includes:

- (1) Boot Welded Construction
- (1) Floor Pad Steel
 (2) Leveling Screws 3/4-10 x 3" Lg. Hex Hd. Bolt w/Locknut
 (2) Shipping Bolts 1/2" Hex. Hd. Bolt w/Locknut

Finish: None (Cust. to finish as req'd.)

LIMIT SWITCH PLATE



2-Holes

PART NO.	A	В	С	D	E	CAD FILE NO.
SW-001	3.00	1.75	.30	.33	.25	SW001
SW-002	4.00	1.75	.30	.33	.25	SW002
SW-003	5.00	1.75	.30	.33	.25	SW003
SW-004	3.00	2.00	.42	.33	.25	SW004
SW-005	4.00	2.00	.42	.33	.25	SW005
SW-006	5.00	2.00	.42	.33	.25	SW006

Material: 1018 C.R.S. Finish: Black Oxide

NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

Detail Standard COMPANY

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CATALOG #GC-02-1-INCH