

## Detail Standard Co.

## Serving Industry With Quality Components



# SECTION A - GENERAL 

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QUOTE REQUEST \& PRODUCT SUGGESTION SHEET

# Detail Standard Co. 

## General Information

## QUALITY

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!

# Detail Standard Co. 

## PRICING \& ORDER QUANTITY

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

## TERMS OF PA YMENT

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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ARH
DSPH, DSPT, DSPA, DSPC
DSPHH, DSPTH, DSPAH, DSPCH
SFH, SFT, SFA, SFC
SFHH, SFTH, SFAH, SFCH
CPS, CPT, CPA, CPC
СРНН, СРТН, СРАН, СРСН
HPH, HPT, HPA, HPC, HDH

HCPH, HCPA, HCPC
HSFS, HSFA, HSFC
HKPH, HKPA, HKPC
HSPH, HSPA, HSPC
KSPH, KSPA, KSPC
HWH, HWA, HWC
SPH, SPA, SPC, TSH, TSA, TSC

LDSH, LDSA, LDSC, LFSH, LFSA, LFSC
HHSH, HHSA, HHSC, HFSH, HFSA, HFSC STAH, STAA, STAT, STAC, TTAH
TTAA, TTAT, TTAC, DTAH, DTAA
DTAT,DTAC, ETAH, ETAA, ETAT, ETAC

K, 2K
CS, SS, AS
TR, TRF
SP, TP
RP, RPS, HP, HPF, HPS, HPFS
SBS, SBSP, SBSC, SBSCP, SBSQ, SBSCQ,
SBT, SBTP, SBTC, SBTCP, SBTQ, SBTCQ
DK, DKF
PPI, PBL
D, HDW, HW, CW
CSS, CST

SHS, DHS, THS, QHSL, QHS
SLS, DSLS, TSLS, QSLS
STP, DTP, TIP, QTPL, QTP

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

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## Detail Standard Co.

## SECTION B <br> STRAIGHT SHAFTS

## Detail Standard Co.

## KEEPER PIN ASSEMBLY

Type KPH, KPT, KPA \& KPC

SEE PAGE E-1 FOR KEEPERS


|  | A Dia. Tolerance |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | KPH | KPA | KPT | KPC | B | D | E | F | G | H | CAD FILE NO. |
| . 250 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0015 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | . 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 |  |  |  |  | . 50 | . 38 | . 75 | . 28 | K-2 | . 50 | KP500 |
| . 625 |  |  |  |  | . 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
KPH 12 L14 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.
Keeper included with assembly (screw not included)
Model Number Development Detail Standard Pin Ass'y
Keeper Pin Type
"A" Diameter
"C" Length

NOTE: Standard lengths for diameters .50 and under are from $1.00^{\prime \prime}$ to $3.00^{\prime \prime}$ in $.25^{\prime \prime}$ increments, and standard lengths for diameters .62 and over are from $3.00^{\prime \prime}$ to $6.00^{\prime \prime}$ in $.50^{\prime \prime}$ 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

# Detail Standard Co. 



Model Number Development
Detail Standard Pin Ass'y

" $A$ " Diameter
"C" Length
Lube Style
"X" Dim.
Additional " X" Dims.
NOTE: All pins with lube holes are wspecialon items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions. Example: MKPH-20-100-LA-50

## Detail Standard Co.

KEEPER PIN ASSEMBLY-HEAVY DUTY
SEE PAGE E-1
FOR KEEPERS
Type KPHH, KPTH, KPAH \& KPCH


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.
Keeper included with assembly (screws not included)

Model Number Development Detail Standard Pin Ass'y
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: MKPHH-38-320

# Detail Standard Co. 

KEEPER PIN ASSEMBLY-HEAVY DUTY
SEE PAGE E-1
FOR KEEPERS


Type Material \& Heat Treat
KPH 12 L14 C.R.S., Garb., Han. \& Gr., Rock "C" 55-60, . 03 Min. Case.
KPAH Turned, Ground \& Polished, Rock "C" 28-32 Uniform Throughout
KPH 1045 Turned, Ground \& Polished.
KPCH 1018 C.R.S.


Model Number Development
Detail Standard Pin Ass'y
 $-$ $\qquad$
Type
"A" Diameter
"C" Length
Lube Style $\qquad$
"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: MKPHH-44-200-LA-100

# Detail Standard Co. 

DOUBLE KEEPER PIN ASSEMBLY
Type DKPH, DKPT, DKPA \& DKPC

## SEE PAGE E-1 FOR KEEPERS



|  | A Dia. Tolerance |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | DKPH | DKPA | DKPT | DKPC | B | D | E | F | G | H | CAD FILE NO. |
| . 250 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0015 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | . 31 | . 25 | . 50 | . 22 | K-1 | . 40 | DKP250 |
| . 312 |  |  |  |  | . 34 | . 25 | . 50 | . 22 | K-1 | . 40 | DKP312 |
| . 375 |  |  |  |  | . 38 | . 25 | . 50 | . 22 | K-1 | . 40 | DKP375 |
| . 438 |  |  |  |  | . 47 | . 38 | . 75 | . 28 | K-2 | . 50 | DKP438 |
| . 500 |  |  |  |  | . 50 | . 38 | . 75 | . 28 | K-2 | . 50 | DKP500 |
| . 625 |  |  |  |  | . 56 | . 38 | . 75 | . 28 | K-2 | . 50 | DKP625 |
| . 750 |  |  |  |  | . 62 | . 38 | . 75 | . 28 | K-2 | . 50 | DKP750 |
| . 875 |  |  |  |  | . 69 | . 38 | . 75 | . 28 | K-2 | . 50 | DKP875 |
| 1.000 |  |  |  |  | . 88 | . 50 | 1.00 | . 34 | K-3 | . 56 | DKP1000 |
| 1.250 |  |  |  |  | 1.00 | . 50 | 1.00 | . 34 | K-3 | . 56 | DKP1250 |

Type Material \& Heat Treat
DKPH 12 L14 C.R.S., Carb., Hdn. \& Gr., Rock. "C" 55-60, . 03 Min. Case.
DKPA Turned, Ground \& Polished, Rock. "C" 28-32 Uniform Throughout.
DKPT 1045 Turned, Ground \& Polished.
DKPC 1018 C.R.S.
Keepers included with assembly (screws not included)
Model Number Development Detail Standard Pin Ass'y
Keeper Pin Type DKPH-. $500-\underline{2.50}$
"A" Diameter
"C" Length
NOTE: Standard lengths for diameters .50 and under are from $1.00^{\prime \prime}$ to $3.00^{\prime \prime}$ in $.25^{\prime \prime}$ 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

# Detail Standard Co. 


Model Number Development
Type
"A" Diameter
"C" Length
Lube Style-
" X " Dim.
Additional " X " Dims.
NOTE: All pins with lube holes are "specialo items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions. Example: MDKPH-20-100-LA-50

# Detail Standard Co. 

## KEEPER PIN ASSEMBLY-HEAVY DUTY

Type DKPHH, DKPTH, DKPAH \& DKPCH

SEE PAGE E-1
FOR KEEPERS


X
$45^{\circ}$
Typ.

$45^{\circ}$


Typ.

|  | A Dia. Tolerance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | DKPHH | DKPAH | DKPTH | DKPCH | B | CAD FILE NO. |
| 1.000 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0035 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | . 88 | DKPH1000 |
| 1.250 |  |  |  |  | 1.00 | DKPH1250 |
| 1.375 |  |  |  |  | 1.06 | DKPH1375 |
| 1.500 |  |  |  |  | 1.12 | DKPH1500 |
| 1.625 |  |  |  |  | 1.18 | DKPH1625 |
| 1.750 |  |  |  |  | 1.25 | DKPH1750 |
| 2.000 |  |  |  |  | 1.38 | DKPH2000 |
| 2.250 |  |  |  |  | 1.50 | DKPH2250 |
| 2.500 |  |  |  |  | 1.62 | DKPH2500 |
| 3.000 |  |  |  |  | 1.88 | DKPH3000 |

Type Material \& Heat Treat
DKPHH 12 L14 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 DKPHH-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

# Detail Standard Co. 

## KEEPER PIN ASSEMBLY-HEAVY DUTY

SEE PAGE E-1
FOR KEEPERS


Type Material \& Heat Treat
DKPHH 12 L14 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 Dia. | A Dia. Tolerance |  |  |  | B | A Dia. | A Dia. Tolerance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DKPHH | DKPAH | DKPTH | DKPCH |  |  | DKPHH | DKPAH | DKPTH | DKPCH | B |
| 1.000 |  |  |  |  | . 875 | 1.750 |  |  |  |  | 1.250 |
| 1.250 |  |  |  |  | 1.000 | 2.000 |  |  |  |  | 1.375 |
| 1.375 | $\begin{array}{\|} +.000 \\ -.001 \end{array}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\|-.0005\|$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | 1.063 | 2.250 | $\begin{array}{\|} +.000 \\ -.001 \end{array}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\left\|\begin{array}{l} -.0005 \\ -.0035 \end{array}\right\|$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | 1.500 |
| 1.500 |  |  |  |  | 1.125 | 2.500 |  |  |  |  | 1.625 |
| 1.625 |  |  |  |  | 1.187 | 3.000 |  |  |  |  | 1.875 |

Model Number Development
Detail Standard Pin Ass'y
 - $\qquad$

"A" Diameter
"C" Length
Lube Style

"X" Dim.
Additional " X " Dims.
NOTE: All pins with lube holes are "specialo items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions. Example: MDKPHH-44-200-LA-100

# Detail Standard Co. 

ANTI-ROTATE PIN ASSEMBLY<br>Type ARH

SEE PAGE E-1 FOR KEEPERS


| A Dia. | B | 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

# Detail Standard Co. 

ANTI-ROTATE PIN ASSEMBLY<br>Type ARH<br>Style BS

SEE PAGE E-1 FOR KEEPERS


| A Dia. | B | 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

# Detail Standard Co. 

## ANTI-ROTATE PIN ASSEMBLY

Type ARH

SEE PAGE E-1 FOR KEEPERS


| A Dia. | B | 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)

Model Number Development
Detail Standard Anti-Rotate Pin Ass'y
Anti-Rotate Pin (Hardened)
"A" Diameter
"C" Length
"E" Dim.
Style

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

# Detail Standard Co. 

## ANTI-ROTATE PIN ASSEMBLY

Type ARH

SEE PAGE E-1 FOR KEEPERS

Style BD


| A Dia. | B | D | E | 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: 12 L 14 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

## Detail Standard Co.

DOUBLE SNAP RING PIN ASSEMBLY
Type DSPH, DSPT, DSPA \& DSPC


|  | A Dia. Tolerance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | DSPH | DSPA | DSPT | DSPC | B | D | CAD FILE NO. |
| . 250 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0015 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | . 43 | . 12 | DSP250 |
| . 312 |  |  |  |  | . 52 | . 16 | DSP312 |
| . 375 |  |  |  |  | . 59 | . 18 | DSP375 |
| . 438 |  |  |  |  | . 64 | . 18 | DSP438 |
| . 500 |  |  |  |  | . 74 | . 25 | DSP500 |
| . 625 |  |  |  |  | . 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 12 L14 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
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

## Detail Standard Co.

## DOUBLE SNAP RING PIN ASSEMBLY



Lube Style LC


Type Material \& Heat Treat
DSPH 12 L14 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.

| A Dia. | A Dia. Tolerance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DSPH | DSPA | DSPT | DSPC | B | D | E |
| . 375 | $\begin{array}{r} +.000 \\ -.001 \end{array}$ | $\begin{array}{r} +.000 \\ -.002 \end{array}$ | $\left\|\begin{array}{l} -.0005 \\ -.0015 \end{array}\right\|$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | . 59 | . 18 | 1/4-28 ST |
| . 438 |  |  |  |  | . 64 | . 18 | 1/4-28 ST |
| . 500 |  |  |  |  | . 74 | . 25 | 1/4-28 ST |
| . 625 |  |  |  |  | . 87 | . 25 | 1/8-27 NPT |
| . 750 |  |  |  |  | 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
Detail Standard Pin Ass'y
Type
"A" Diameter
"C" Length
Lube Style
"X" Dim.


Additional
" $\times 1$ " Dims.
NOTE: All pins with lube holes are "specialo items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions. Example: MDSPH-20-200-LA-100

## Detail Standard Co.

DOUBLE SNAP RING PIN ASSEMBLY - HEAVY DUTY
Type DSPHH, DSPTH, DSPAH \& DSPCH


|  | A Dia. Tolerance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | DSPHH | DSPAH | DSPTH | DSPCH | B | D | CAD FILE NO. |
| 1.375 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0035 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | 1.72 | . 31 | DSPH1375 |
| 1.500 |  |  |  |  | 1.90 | . 31 | DSPH1500 |
| 1.625 |  |  |  |  | 2.08 | . 31 | DSPH1625 |
| 1.750 |  |  |  |  | 2.21 | . 31 | DSPH1750 |
| 2.000 |  |  |  |  | 2.44 | . 38 | DSPH2000 |
| 2.250 |  |  |  |  | 2.74 | . 38 | DSPH2250 |
| 2.500 |  |  |  |  | 2.98 | . 38 | DSPH2500 |
| 3.000 |  |  |  |  | 3.53 | . 38 | DSPH3000 |

Type Material \& Heat Treat
DSPHH 12 L14 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.
Snap rings included with assembly
Model Number Development
Detail Standard Pin Ass'y
Heavy Duty Double Snap Ring Pin


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

## Detail Standard Co.

## DOUBLE SNAP RING PIN ASSEMBLY - HEAVY DUTY



Type Material \& Heat Treat
DSPHH 12 L14 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.

| A Dia. | A Dia. Tolerance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DSPHH | DSPAH | DSPTH | DSPCH | B | D |
| 1.375 | $\begin{array}{r} +.000 \\ -.001 \end{array}$ | $\begin{array}{\|} +.000 \\ -.002 \end{array}$ | $\left\|\begin{array}{\|} -.0005 \\ -.0035 \end{array}\right\|$ | $\begin{array}{r} +.000 \\ -.004 \end{array}$ | 1.72 | . 31 |
| 1.500 |  |  |  |  | 1.90 | . 31 |
| 1.625 |  |  |  |  | 2.08 | . 31 |
| 1.750 |  |  |  |  | 2.21 | . 31 |


| A Dia. | A Dia. Tolerance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DSPHH | DSPAH | DSPTH | DSPCH | B | D |
| 2.000 | $\begin{array}{r} +.000 \\ -.001 \end{array}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0035 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | 2.44 | . 38 |
| 2.250 |  |  |  |  | 2.74 | . 38 |
| 2.500 |  |  |  |  | 2.98 | . 38 |
| 3.000 |  |  |  |  | 3.53 | . 38 |

Model Number Development
Detail Standard Pin Ass'y

"A" Diameter
"C" Length
Lube Style
"X" Dim.
Additional " X " Dims.
NOTE: All pins with lube holes are wspecialo items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions.
Example: MDSPHH-44-200-LA-100

## Detail Standard Co.

SINGLE FLAT PIN
Type SFH, SFT, SFA \& SFC


|  | A Dia. Tolerance |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | SFH | SFA | SFT | SFC | B | D | E | CAD FILE NO. |
| . 250 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0015 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | . 25 | . 28 | . 06 | SF250 |
| . 312 |  |  |  |  | . 25 | . 28 | . 06 | SF312 |
| . 375 |  |  |  |  | . 31 | . 40 | . 06 | SF375 |
| . 438 |  |  |  |  | . 31 | . 40 | . 06 | SF438 |
| . 500 |  |  |  |  | . 44 | . 40 | . 09 | SF500 |
| . 625 |  |  |  |  | . 44 | . 40 | . 09 | SF625 |
| . 750 |  |  |  |  | . 50 | . 53 | . 12 | SF750 |
| . 875 |  |  |  |  | . 50 | . 53 | . 12 | SF875 |
| 1.000 |  |  |  |  | . 50 | . 53 | . 12 | SF1000 |
| 1.250 |  |  |  |  | . 50 | . 53 | . 12 | SF1250 |

Type
SFH
SFA
SFT
SFC
Material \& Heat Treat
Model Number Development

Detail Standard Pin Ass'y

"A" Diameter
"C" Length
"B" Dimension

NOTE: Standard lengths for diameters .50 and under are from 1.00 " to 3.00 " in $.25^{\prime \prime}$ increments, and standard lengths for diameters .62 and over are from $3.00^{\prime \prime}$ to $6.00^{\prime \prime}$ in $.50^{\prime \prime}$ 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

## Detail Standard Co.

## SINGLE FLAT PIN



Lube Style LB

## Lube Style LC



Type
SFH
SFA
SFT
SFC

Material \& Heat Treat
12 L14 C.R.S., Carb., Hdn. \& Gr., Rock "C" 55-60, . 03 Min. Case. Turned, Ground \& Polished, Rock "C" 28-32 Uniform Throughout 1045 Turned, Ground \& Polished.
1018 C.R.S.

| A Dia. | A Dia. Tolerance |  |  |  | B | D | E | F |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SFH | SFA | SFT | SFC |  |  |  | Style | LA | Style | LB | Style | LC |
| . 375 | $+.000$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\left\|\begin{array}{l} -.0005 \\ -.0015 \end{array}\right\|$ | $\begin{array}{r} +.000 \\ -.002 \end{array}$ | . 31 | . 40 | . 06 | 5/32 D | 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 |  |  |  |  | . 44 | . 40 | . 09 | 1/4-28 | ST | 1/8-27 | NPT | 1/4-28 | ST |
| . 750 |  |  |  |  | . 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


NOTE: All pins with lube holes are ${ }^{\mu s}$ special ${ }_{p}$ items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions.
Example: MSFH-20-100-12-LA-50

## Detail Standard Co.

## SINGLE FLAT PIN - HEAVY DUTY

## Type SFHH, SFTH, SFAH \& SFCH




Type Material \& Heat Treat
SFHH 12L14 C.R.S., Garb., Han. \& 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.
Model Number Development Detail Standard Pin Ass'y
SFHH-1.500-10.00-. 62
Single Flat Pin Type $\qquad$
"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

## Detail Standard Co.

## SINGLE FLAT PIN - HEAVY DUTY



Lube Style LB


Type Material \& Heat Treat
SFHH 12 L14 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.

| A | A Dia. Tolerance |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Dia. | SFHH | SFAH | SFTH | SFCH |
| 1.375 |  |  |  |  |
| 1.500 | +.000 | +.000 | -.0005 | +.000 |
| 1.625 | -.001 | -.002 | -.0035 | -.004 |
|  |  |  |  |  |


| A <br> Dia. | A Dia. Tolerance |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | SFHH | SFAH | SFTH | SFCH |
| 2.250 | +.000 | +.000 | -.0005 | +.000 |
| 2.500 | -.001 | -.002 | -.0035 | -.004 |
| 3.000 |  |  |  |  |

Model Number Development
Detail Standard Pin Ass'y
Type
"A" Diameter
"C" Length
"B" Dimension
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: MSFHH-44-200-20-LA-100

## Detail Standard Co.

## COTTER PIN SHAFT ASSEMBLY

Type CPH, CPT, CPA \& CPC


Type Material \& Heat Treat
CPH 12 L14 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 Detail Standard Pin Ass'y
Cotter Pin Type
"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

## Detail Standard Co.

## COTTER PIN SHAFT ASSEMBLY-HEAVY DUTY

Type CPHH, CPTH, CPAH \& CPCH


|  | A Dia. Tolerance |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | CPHH | СРАН | CPTH | CPCH | B | D | CAD FILE NO. |
| 1.375 | $\begin{aligned} & +.000 \\ & -.001 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.002 \end{aligned}$ | $\begin{aligned} & -.0005 \\ & -.0035 \end{aligned}$ | $\begin{aligned} & +.000 \\ & -.004 \end{aligned}$ | . 38 | . 18 | CPHH1375 |
| 1.500 |  |  |  |  | . 38 | . 18 | CPHH1500 |
| 1.625 |  |  |  |  | . 38 | . 18 | CPHH1625 |
| 1.750 |  |  |  |  | . 38 | . 18 | CPHH1750 |
| 2.000 |  |  |  |  | . 50 | . 25 | CPHH2OOO |
| 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 Standard Pin Ass'y
Cotter Pin Type
"A" Diameter


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

# Detail Standard Co. 

## HOLLOW PIN

Type HPH, HPT, HPA \& HPC


Type $\quad$ Material \& Heat Treat
HPH 12 L14 C.R.S., Carb., Hdn. \& Gr., Rock. "C" 55-60, . 03 Min. Case.
HPA Turned, Ground \& Polished, Rock. "C" 28-32 Uniform Throughout.
HPT 1045 Turned, Ground \& Polished.
HPC 1018 C.R.S.

Model Number Development
Detail Standard Pin Ass'y
Hollow Pin Type


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 |

$\frac{\text { Type }}{\text { HDH }} \quad \frac{\text { Material \& Heat Treat }}{\text { Drill Rod., Carb., Hdn. \& Gr., Rock. "C" 55-60, . } 02 \text { Min. Case. }}$

Model Number Development
Detail Standard Hollow Dowel

"A" Dia. (Nom.)
"B" Diameter
"C" Length


NOTE: Standard lengths for all ' $A$ ' diameters is $1.5 \times$ ' $A$ ' 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

## Detail Standard Co.



Type Material \& Heat Treat
HCPH 12L14 C.R.S., Garb., Han. \& 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

"A" Diameter
"C" Length
NOTE: Standard lengths for diameters .50 and under are from $1.00^{\prime \prime}$ to $3.00^{\prime \prime}$ in .25 " increments, and standard lengths for diameters .62 and over are from $3.00^{\prime \prime}$ to $6.00^{\prime \prime}$ in $.50^{\prime \prime}$ 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

## HEAD PIN WITH COTTER PIN

## Lube Type LA



Type $\quad$ 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.

| A Dia. | B Dia. | D | E | 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


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

## Detail Standard Co.

HEAD PIN WITH FLAT
Type HSFH, HSFA \& HSFC


| A Dia. | B Dia. | D | E | F | G | CAD FILE 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
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
C-3

## Detail Standard Co.

## HEAD PIN WITH FLAT



Type Material \& Heat Treat
HSFH 12 L 14 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.

| 10 |  | 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 Driv | Drive |
| . 438 | . 88 | . 18 | . 31 | . 40 | . 06 | 5/32 | Drive | 5/32 | Drive | 5/32 Driv | Drive |
| . 500 | 1.00 | . 25 | . 44 | . 40 | . 09 | 1/4-28 | ST. | 5/32 | Drive | 5/32 D | 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
Detail Standard Pin


NOTE: All pins with lube holes are ospecialop items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions.
Example: MHSFH-20-100-20-LA-50

# Detail Standard Co. 

## HEAD PIN WITH KEEPER

SEE PAGE E-1
FOR KEEPERS
Type HKPH, HKPA \& HKPC


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

Type Material \& Heat Treat
HKPH 12 L14 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 Development
Head Pin with Keeper
"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
C-5

# Detail Standard Co. 



HKPH 12 L 14 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 | H | Style | LA | Style | LB | Style | LC |
| . 375 | . 62 | . 18 | . 40 | . 38 | K-1 | . 22 | 1/4-28 | ST | 5/32 D | Drive | 5/32 | Drive |
| . 438 | . 88 | . 18 | . 50 | . 47 | K-2 | . 28 | 1/4-28 | ST | 5/32 D | 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
Type
"A"
A Diameter
"C" Length
Lube Style
"X" Dim.
Additional " $\mathrm{X}_{1}$ " 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

## Detail Standard Co.

## HEAD PIN WITH SNAP RING

Type HSPH, HSPA \& HSPC


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
"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

## HEAD PIN WITH SNAP RING

## Lube Style LA



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

| A Bia. | B Bia. | D | E | F Bia. | 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 | $1 / 8-27$ | NT |
| 1.250 | 1.88 | .38 | .31 | 1.62 | $1 / 8-27$ | NPT |

Model Number Development
Detail Standard Pin Ass'y
Type
"A" Diameter

"C" Length
Lube Style
" X " Dim.
Additional " $X_{1}^{\text {" }}$ 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

## Detail Standard Co.

## HEAD PIN WITH KNURL AND SNAP RING



Type Material \& Heat Treat
KSPH 12 L14 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.

Model Number Development

Detail Standard Pin Ass'y $\frac{\mathrm{KSPH}}{\square}-.500-2.50$

Head Pin with Knurl and Snap Ring
"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
C-9

## Detail Standard Co.

## HEAD PIN WITH KNURL AND SNAP RING



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


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

## Detail Standard Co.

## 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
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 1018 C.R.S.


NOTE: Standard lengths for diameters .50 and under are from 1.00 " to 3.00 " in $.25^{\prime \prime}$ 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

HEAD PIN WITH WHISTLENOTCH


Type Material \& Heat Treat
HWH 12 L14 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 1018 C.R.S.

| 18 C.R.S. |  |  |  | H |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | B Dia. | D | E | Style | LA | Style | LB | Style | LC |
| . 375 | . 62 | . 18 | . 62 | 5/32 | Drive | 5/32 D | Drive | 5/32 | Drive |
| . 438 | . 88 | . 18 | . 62 | 5/32 | Drive | 5/32 D | Drive | 5/32 | Drive |
| . 500 | 1.00 | . 25 | . 75 | 1/4-28 | ST. | 5/32 D | Drive | 5/32 D | 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
Detail Standard Pin


NOTE: All pins with lube holes are wspecialop items
To order this product METRIC, use ' $M$ ' before the model number and millimeters for dimensions. Example: MHWH-20-100-130-LA-50

## Detail Standard Co.

## STUB PIN

Type SPH, SPA \& SPC


| A Dia. | B Dia. | D | E | F | CAD FILE NO. |
| ---: | :---: | :---: | :---: | :---: | :---: |
| .438 | 1.00 | .18 | .03 | $\# 6$ | SP438 |
| .500 | 1.12 | .18 | .03 | $\# 6$ | SP500 |
| .625 | 1.25 | .25 | .06 | $\# 10$ | SP625 |
| .750 | 1.50 | .25 | .06 | $1 / 4$ | SP750 |
| .875 | 1.62 | .25 | .06 | $5 / 16$ | SP875 |
| 1.000 | 1.75 | .38 | .06 | $3 / 8$ | SP1000 |
| 1.250 | 2.00 | .38 | .06 | $3 / 8$ | SP1250 |

Type Material \& Heat Treat
SPH 12L14 C.R.S., Carb., Hdn. \& Gr.,, Rock. "C" 55-60, . 03 Min. Case.
SPA Pre-heat treated Alloy, Rock. "C" 28-32 Uniform Throughout.
SPC 1018 C.R.S.


NOTE: Standard lengths for diameters .50 and under are from 1.00 " to 3.00 " in $.25^{\prime \prime}$ 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

# Detail Standard Co. 

## STUB PIN

Type TSH, TSA \& TSC


| A Dia. | B Dia. | D | E | F | CAD FILE NO. |
| ---: | :---: | :---: | :---: | :---: | :---: |
| .438 | 1.00 | .18 | .03 | $\# 10-32 \times 1 / 2$ | TS438 |
| .500 | 1.12 | .18 | .03 | $\# 10-32 \times 1 / 2$ | TS500 |
| .625 | 1.25 | .25 | .06 | $1 / 4-20 \times 5 / 8$ | TS625 |
| .750 | 1.50 | .25 | .06 | $5 / 16-18 \times 5 / 8$ | TS750 |
| .875 | 1.62 | .25 | .06 | $5 / 16-18 \times 5 / 8$ | TS875 |
| 1.000 | 1.75 | .38 | .06 | $5 / 16-18 \times 5 / 8$ | TS1000 |
| 1.250 | 2.00 | .38 | .06 | $3 / 8-16 \times 3 / 4$ | 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
Stub Pin $\qquad$
"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

# Detail Standard Co. 

## STUB PIN

## Lube Style LA



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

Type Material \& Heat Treat
TSH 12 L 14 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 tapped hole location)

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

SHOULDER SCREWS

## LIGHT DUTY SHOULDER SCREW

Type LDSH, LDSA \& LDSC (COARSE THREAD)


|  |  | * C Length |  |  |  |  |  |  |  | * 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 | X | X | X |  |  |  |  | . 12 | X | X |  |  |  | 1/4-20 | LDS312 |
| . 375 | . 68 |  | X | X | X |  |  |  | . 18 |  | X | X |  |  | 5/16-18 | LDS375 |
| . 438 | . 75 |  | X |  | X |  |  |  | . 18 |  |  | X | X |  | 5/16-18 | LDS438 |
| . 500 | . 81 |  |  | X | X | X |  |  | . 25 |  |  | X | X |  | 3/8-16 | LDS500 |
| . 625 | . 94 |  |  |  |  | X |  | X | . 25 |  |  |  | X | X | 1/2-13 | LDS625 |

Type Material \& Heat Treat
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.

Model Number Development
Detail Standard Shoulder Screw LDSH-. $500-1.50-.56-3 / 8-16$
Light Duty Shoulder Screw
"A" Diameter $\square$
"C" Length of Body
" "E" Length of Thread
*
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: MLDSH-12-38-14-M10-1.5

## LIGHT DUTY SHOULDER SCREW

Type LFSH, LFSA \& LFSC
(FINE THREAD)


Type Material \& Heat Treat
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
LFSH-. $500-1.50-.56-3 / 8-24$
Light Duty Shoulder Screw
"A" Diameter

"C" Length of Body
"E" Length of Thread
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: MLFSH-12-38-14-M10-1.25

## Detail Standard Co.

## HEX HEAD SHOULDER SCREWS

Type HHSH, HHSA \& HHSC
(COARSE THREAD)


Type Material \& Heat Treat
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.
Model Number Development

Detail Standard Shoulder Screw HHSH-1.000-2.50-1.00 $-3 / 4-10$

Hex Head Shoulder Screw
"A" Diameter
"C" Length
$\qquad$
"E" Length of Thread
"F" Thread $\qquad$
*
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

## Detail Standard Co.

## HEX HEAD SHOULDER SCREWS

Type HFSH, HFSA \& HFSC
(FINE THREAD)


Type Material \& Heat Treat
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.
Model Number Development
Detail Standard Shoulder Screw HFSH - $1.000-2.50-1.00-3 / 4-16$
Hex Head Shoulder Screw
"A" Diameter
"C" Length $\qquad$
"E" Length of Thread
"F" Thread $\qquad$
$\qquad$
*
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

## Detail Standard Co.

## HEX HEAD SHOULDER SCREWS

Lube Style LB


Lube Style LA


| A Dia. | $\begin{gathered} \mathrm{B} \\ \mathrm{Hex} \end{gathered}$ | D | F |  | G | H |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | HHSH,HHSA \& HHSC | HFSH,HFSA \& HFSC |  | Style LA | Style |  | Style |  |
| . 625 | . 88 | . 25 | 1/2-13 | 1/2-20 | 1.01 | 1/8-27 NPT | 1/4-28 |  | 1/4-28 |  |
| . 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 | 3/4-10 | 3/4-16 | 1.30 | 1/8-27 NPT | 1/8-27 | NPT | 1/8-27 | NPT |
| 1.000 | 1.25 | . 31 | 3/4-10 | 3/4-16 | 1.44 | 1/8-27 NPT | 1/8-27 | NPT | 1/8-27 | NPT |
| 1.250 | 1.50 | . 31 | 7/8-9 | 7/8-14 | 1.73 | 1/8-27 NPT | 1/8-27 | NPT | 1/8-27 | NPT |
| 1.500 | 2.00 | . 38 | $11 / 8-7$ | $11 / 8-12$ | 2.31 | 1/8-27 NPT | 1/8-27 | NPT | 1/8-27 | NPT |
| 1.750 | 2.25 | . 38 | $13 / 8-6$ | $13 / 8-12$ | 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 |

Type
HHSH \& HFSH
HHSA \& HFSA
HHSC \& HFSC

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

Model Number Development
Detail Standard Shoulder Screw


Type
"A" Diameter
"C" Length $\qquad$
"E" Length of Thread
"F" Thread
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: MHHSH-25-100-25-M18-2.5-LA-50

STANDOFF
Type STAH, STAA, STAT \& STAC


| A | RECOMMENDED D THREAD |  |
| :---: | :---: | :---: |
| Dia. | COARSE | FINE |
| .312 | $1 / 4-20$ | $1 / 4-28$ |
| .375 | $5 / 16-18$ | $5 / 16-24$ |
| .438 | $5 / 16-18$ | $5 / 16-24$ |
| .500 | $3 / 8-16$ | $3 / 8-24$ |
| .625 | $1 / 2-13$ | $1 / 2-20$ |
| .750 | $5 / 8-11$ | $5 / 8-18$ |


| A Dia. | RECOMMENDED D THREAD |  |
| :---: | :---: | :---: |
|  | COARSE | FINE |
| . 875 | 3/4-10 | 3/4-16 |
| 1.000 | 3/4-10 | 3/4-16 |
| 1.250 | 7/8-9 | 7/8-14 |
| 1.500 | $11 / 8-7$ | $11 / 8-12$ |
| 1.750 | $13 / 8-6$ | $13 / 8-12$ |
| 2.000 | 1 1/2-6 | 1 1/2-12 |

Type Material \& Heat Treat
STAH 12L14 C.R.S., Carb., Hdn.\& Gr., Rock."C" 55-60, . 03 Min. Case. STAA Turned, Ground \& Polished, Rock. "C" 28-32 Uniform Throughout
STAT 1045 Turned, Ground \& Polished.
STAC 1018 C.R.S.
Model Number Development

Detail Standard Standoff
STAH $-1.000-4.00-1.00-3 / 4-16$

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
D-6

## STANDOFF WITH END TAP

Type TTAH, TTAA, TТАТ \& TTAC


| A | RECOMMENDED D THREAD |  | RECOMMENDED E THREAD |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 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 | $11 / 8-7$ | $11 / 8-12$ | $5 / 8-11$ | $5 / 8-18$ |
| 1.750 | $13 / 8-6$ | $13 / 8-12$ | $5 / 8-11$ | $5 / 8-18$ |
| 2.000 | $11 / 2-6$ | $11 / 2-12$ | $3 / 4-10$ | $3 / 4-16$ |

Type Material \& Heat Treat
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 ПАН- $1.000-4.00-1.00-3 / 4-16-1 / 2-13-.62$
Type
"A" Diameter
"B" Length
$\qquad$
"C" Length of Thread
"D" Thread Size
"E" Tap Size

```-
```

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

## Detail Standard Co.

## DOUBLE THREADED STANDOFFS

Type DTAH, DTAA, DTAT \& DTAC

$D$


| A <br> Dia. | D THREAD |  |
| :---: | :---: | :---: |
|  | COARSE THREAD | FINE THREAD |
| .375 | $5 / 4-20$ | $1 / 4-28$ |
| .438 | $5 / 16-18$ | $5 / 16-24$ |
| .500 | $3 / 8-16$ | $5 / 16-24$ |
| .625 | $1 / 2-13$ | $3 / 8-24$ |
| .750 | $5 / 8-11$ | $1 / 2-20$ |


| A | D THREAD |  |
| :---: | :---: | :---: |
|  | COARSE THREAD | FINE THREAD |
| .875 | $3 / 4-10$ | $3 / 4-16$ |
| 1.000 | $3 / 4-10$ | $3 / 4-16$ |
| 1.250 | $7 / 8-9$ | $7 / 8-14$ |
| 1.500 | $11 / 8-7$ | $11 / 8-12$ |
| 1.750 | $13 / 8-6$ | $13 / 8-12$ |
| 2.000 | $11 / 2-6$ | $11 / 2-12$ |

Type Material \& Heat Treat
DTAH 12 L14 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.

Model Number Development

Detail Standard Standoff

$$
\text { DTAH }-1.000-4.00-1.00-3 / 4-16-1.25-5 / 8-11
$$

Type
"A" Diameter-
"B" Length
"C" Length of Thread-
"D" Thread Size
"E" Length of Thread-
"F" Thread Size
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
D-8

## STANDOFF WITH BOTH ENDS TAPPED

Type ETAH, ETAA, ETAT \& ETAC


| A | RECOMMENDED C \& E TAP |  | RECOMMENDED |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 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 Material \& Heat Treat
ETA 12 L 14 C.R.S., Carb., Han.\& 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.
Model Number Development
Detail Standard Standoff with End Tap $\underline{\text { ETA }}-\underline{1.000}-\underline{4.00}-\underline{3 / 4-16}-\underline{1.00}-1 / 2-13-.62$
Type
"A" Diameter $\square$
"B" Length
"C" Tap Size-
"D" Tap Depth
"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: METAH-25-100-M20-2.5-25-M12-1.75-18


## KEEPERS



| KEEPER No. | A | B | C | D | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{K}-1$ | .50 | .25 | .12 | .22 | K 1 |
| $\mathrm{~K}-2$ | .75 | .38 | .12 | .28 | K 2 |
| $\mathrm{~K}-3$ | 1.00 | .50 | .12 | .34 | K 3 |
| $\mathrm{~K}-4$ | .75 | .38 | .25 | .28 | K 4 |
| $\mathrm{~K}-5$ | 1.00 | .50 | .25 | .34 | K 5 |
| $\mathrm{~K}-6$ | 1.25 | .62 | .25 | .41 | K 6 |
| $\mathrm{~K}-7$ | 1.50 | .75 | .25 | .53 | K 7 |
| $\mathrm{~K}-8$ | 1.00 | .50 | .25 | .41 | K 8 |
| $\mathrm{~K}-9$ | 1.00 | .50 | .12 | .28 | K 9 |



| KEEPER No. | A | B | C | D | E | F | G | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2 \mathrm{~K}-1$ | .75 | 1.25 | .12 | .38 | .38 | .50 | .28 | 2 K 1 |
| $2 \mathrm{~K}-2$ | 1.00 | 1.50 | .12 | .50 | .38 | .75 | .34 | 2 K 2 |
| $2 \mathrm{~K}-3$ | 1.25 | 2.00 | .25 | .62 | .50 | 1.00 | .41 | 2 K 3 |
| $2 \mathrm{~K}-4$ | 1.50 | 2.50 | .25 | .75 | .62 | 1.25 | .53 | 2 K 4 |
| $2 \mathrm{~K}-5$ | .75 | 1.25 | .25 | .38 | .38 | .50 | .28 | 2 K 5 |
| $2 \mathrm{~K}-6$ | 1.00 | 1.50 | .25 | .50 | .38 | .75 | .34 | 2 K 6 |
| $2 \mathrm{~K}-7$ | .75 | 1.25 | .12 | .31 | .31 | .62 | .34 | 2 K 7 |
| $2 \mathrm{~K}-8$ | 1.25 | 2.00 | .25 | .44 | .50 | 1.00 | .41 | 2 K 8 |
| $2 \mathrm{~K}-9$ | 1.50 | 2.50 | .25 | .50 | .50 | 1.50 | .53 | 2 K 9 |
| $2 \mathrm{~K}-10$ | .62 | 1.25 | .12 | .31 | .31 | .62 | .28 | 2 K 10 |
| $2 \mathrm{~K}-11$ | 1.00 | 1.75 | .25 | .50 | .50 | .75 | .41 | 2 K 11 |
| $2 \mathrm{~K}-12$ | 1.25 | 2.00 | .25 | .82 | .44 | 1.12 | .34 | 2 K 12 |
| $2 \mathrm{~K}-13$ | 1.50 | 2.50 | .25 | .50 | .50 | 1.50 | .41 | 2 K 13 |
| $2 \mathrm{~K}-14$ | .62 | 1.25 | .12 | .31 | .25 | .75 | .28 | 2 K 14 |
| $2 \mathrm{~K}-15$ | .75 | 1.25 | .12 | .38 | .25 | .75 | .28 | 2 K 15 |
| $2 \mathrm{~K}-16$ | 1.00 | 1.50 | .12 | .50 | .50 | .50 | .28 | 2 K 16 |
| $2 \mathrm{~K}-17$ | 1.00 | 1.75 | .12 | .50 | .50 | .75 | .41 | 2 K 17 |

Material: 1018 C.R.S.

## Detail Standard Co.

TUBING SPACERS
Type CS, SS, \& AS


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 Bia. | B Did. |
| :---: | :---: |
| .38 | .209 |
| .38 | .277 |
| .50 | .232 |
| .50 | .282 |
| .50 | .334 |
| .50 | .384 |
| .62 | .385 |
| .62 | .459 |
| .62 | .527 |
| .75 | .482 |
| .75 | .510 |
| .75 | .634 |


| A Bia. | B Did. |
| :---: | :---: |
| .88 | .500 |
| .88 | .562 |
| .88 | .635 |
| .88 | .777 |
| 1.00 | .562 |
| 1.00 | .640 |
| 1.00 | .760 |
| 1.00 | .902 |
| 1.12 | .563 |
| 1.12 | .687 |
| 1.12 | .781 |
| 1.12 | 1.027 |


| A Did. | B Did. |
| :---: | :---: |
| 1.25 | .562 |
| 1.25 | .687 |
| 1.25 | .812 |
| 1.25 | .906 |
| 1.25 | 1.010 |
| 1.38 | .937 |
| 1.38 | 1.031 |
| 1.38 | 1.277 |
| 1.50 | .750 |
| 1.50 | .812 |
| 1.50 | .938 |
| 1.50 | 1.062 |


| A Via. | B Did. |
| :---: | :---: |
| 1.50 | 1.260 |
| 1.62 | .875 |
| 1.62 | 1.000 |
| 1.62 | 1.063 |
| 1.62 | 1.281 |
| 1.62 | 1.555 |
| 1.75 | .875 |
| 1.75 | 1.000 |
| 1.75 | 1.125 |
| 1.75 | 1.532 |
| 1.88 | 1.000 |
| 1.88 | 1.125 |


| A Bia. | B Bia. |
| :---: | :---: |
| 1.88 | 1.313 |
| 1.88 | 1.562 |
| 2.00 | 1.125 |
| 2.00 | 1.312 |
| 2.00 | 1.524 |
| 2.25 | 1.124 |
| 2.25 | 1.375 |
| 2.25 | 1.562 |
| 2.50 | 1.000 |
| 2.50 | 1.250 |
| 2.50 | 1.375 |
| 2.50 | 1.625 |

Finish:
$\mathrm{N}=$ None
B = Black Oxide (Type CS Only)
A = Anodized (Type AS Only)
Model Number Development
Detail Standard Tubing Spacer
Tubing Spacer - (CS, SS or AS)


Finish - (N, B or A)
Note: Other O.D./I.D. size combinations may be ordered as "special" items.

## THREADED ROD

Type TR


|  |  | * C Length |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Thread | B | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | D | CAD FILE NO. |
| 5/16-18 | . 18 | X | X | X | X |  |  |  |  |  | . 18 | TR516 |
| 5/16-24 | . 18 | X | X | X | X |  |  |  |  |  | . 18 | TR516 |
| 3/8-16 | . 25 | X | X | X | X | X |  |  |  |  | . 25 | TR38 |
| 3/8-24 | . 25 | X | X | X | X | X |  |  |  |  | . 25 | TR38 |
| 7/16-14 | . 31 |  | X | X | X | X |  |  |  |  | . 25 | TR716 |
| 7/16-20 | . 31 |  | X | X | X | X |  |  |  |  | . 25 | TR716 |
| 1/2-13 | . 38 |  | X | X | x | X | X |  |  |  | . 31 | TR12 |
| 1/2-20 | . 38 |  | X | X | X | X | X |  |  |  | . 31 | TR12 |
| 5/8-11 | . 50 |  |  |  | X | X | X | X |  |  | . 38 | TR58 |
| 5/8-18 | . 50 |  |  |  | X | X | X | X |  |  | . 38 | TR58 |
| 3/4-10 | . 62 |  |  |  | X | X | X | X |  |  | . 50 | TR34 |
| 3/4-16 | . 62 |  |  |  | X | X | X | X |  |  | . 50 | TR34 |
| 1-8 | . 75 |  |  |  |  | X | X | X | X |  | . 50 | TR1 |
| 1-14 | . 75 |  |  |  |  | X | X | X | X |  | . 50 | TR1 |
| 1 1/4-7 | 1.00 |  |  |  |  | X | X | X | X | X | . 50 | TR114 |
| 1 1/4-12 | 1.00 |  |  |  |  | X | X | X | X | X | . 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

*
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: MTR-18-2.5-100

## THREADED ROD

Type TRF


|  |  | * C Length (Slot Centered) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Thread | B | 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 | X | X | X |  |  |  |  |  | . 18 | TRF516 |
| 5/16-24 | . 18 | X | X | X | X |  |  |  |  |  | . 18 | TRF516 |
| 3/8-16 | . 25 | X | X | X | X | X |  |  |  |  | . 25 | TRF38 |
| 3/8-24 | . 25 | X | X | X | X | X |  |  |  |  | . 25 | TRF38 |
| 7/16-14 | . 31 |  | X | X | X | X |  |  |  |  | . 25 | TRF716 |
| 7/16-20 | . 31 |  | X | X | X | X |  |  |  |  | . 25 | TRF716 |
| 1/2-13 | . 38 |  | X | X | X | X | X |  |  |  | . 31 | TRF12 |
| 1/2-20 | . 38 |  | X | X | X | X | X |  |  |  | . 31 | TRF12 |
| 5/8-11 | . 50 |  |  |  | X | X | X | X |  |  | . 38 | TRF58 |
| 5/8-18 | . 50 |  |  |  | X | X | X | X |  |  | . 38 | TRF58 |
| 3/4-10 | . 62 |  |  |  | X | X | X | X |  |  | . 50 | TRF34 |
| 3/4-16 | . 62 |  |  |  | X | X | X | X |  |  | . 50 | TRF34 |
| 1-8 | . 75 |  |  |  |  | X | X | X | X |  | . 50 | TRF1 |
| 1-14 | . 75 |  |  |  |  | X | X | X | X |  | . 50 | TRF1 |
| 1 1/4-7 | 1.00 |  |  |  |  | X | X | X | X | X | . 50 | TRF114 |
| 1 1/4-12 | 1.00 |  |  |  |  | X | X | X | X | X | . 50 | TRF114 |

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
Threaded Rod
"A" Thread
"C" Thread Length
"D" Dimension (Slot will be centered if not specified)
*
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: MTRF-M18-2.5-100-58

## STOP PADS

Type SP

|  |  | C Length |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | B | .375 | .500 | .625 | .750 | 1.000 | 1.250 | 1.500 | D | CAD FILE NO. |
| .50 | No.10 | X | X |  |  |  |  |  | .27 | SP 150 |
| .62 | $\mathrm{No.10}$ | X | X | X | X | X | X | X | .27 | SP 162 |
| .62 | $1 / 4$ |  | X | X | X | X | X | X | .40 | SP 12562 |
| .75 | $1 / 4$ |  | X | X | X | X | X | X | .40 | SP 175 |
| .88 | $1 / 4$ | X | X |  |  |  |  |  | .28 | SP 12588 |
| .88 | $5 / 16$ |  |  | X | X | X | X | X | .46 | SP 188 |
| 1.00 | $5 / 16$ |  |  |  | X | X | X | X | .46 | SP 1000 |
| 1.25 | $3 / 8$ |  |  |  | X | X | X | X | .56 | SP 1125 |
| 1.50 | $1 / 2$ |  |  |  |  | X | X | X | .80 | SP 1500 |
| 1.62 | $1 / 2$ |  |  |  |  | X | X | X | .80 | SP 1625 |

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

## Model Number Development

Detail Standard Stop Pad
Stop Pad

"A" Diameter

"C" Length
"D" Depth
"B" 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 Length |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | B Tap | .500 | .625 | .750 | 1.000 | 1.250 | 1.500 | CAD FILE NO. |  |  |  |  |  |  |
| .50 | $\# 10-32 \times 1 / 4$ | X | X | X |  |  |  | TP50 |  |  |  |  |  |  |
| .62 | $1 / 4-20 \times 3 / 8$ |  | X | X | X |  |  | TP62 |  |  |  |  |  |  |
| .75 | $5 / 16-18 \times 1 / 2$ |  |  | X | X | X |  | TP75 |  |  |  |  |  |  |
| .88 | $1 / 4-20 \times 1 / 2$ |  |  | X | X | X |  | TP88 |  |  |  |  |  |  |
| .88 | $5 / 16-18 \times 1 / 2$ |  |  | X | X | X |  | TP88 |  |  |  |  |  |  |
| 1.00 | $5 / 16-18 \times 1 / 2$ |  |  |  | X | X | X | TP100 |  |  |  |  |  |  |
| 1.25 | $3 / 8-16 \times 5 / 8$ |  |  |  | X | X | X | TP125 |  |  |  |  |  |  |
| 1.50 | $1 / 2-13 \times 3 / 4$ |  |  |  | X | X | X | TP150 |  |  |  |  |  |  |
| 1.62 | $1 / 2-13 \times 3 / 4$ |  |  |  | X | X | X | 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

*
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-M6-1×10

## REST PADS

Type RP
(Press Fit)


|  |  | $*$ L Length |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | B Dia. | .250 | .375 | .500 | .625 | .750 | 1.000 | 1.250 | D | CAD FILE NO. |
| .251 | .50 | X | X | X |  |  |  |  | .47 | RP 50 |
| .376 | .62 | X | X | X | X |  |  |  | .60 | RP 62 |
| .501 | .75 |  | X | X | X | X |  |  | .60 | RP 75 |
| .626 | 1.00 |  | X | X | X | X |  |  | .72 | RP 100 |
| .751 | 1.25 |  |  | X |  | X | X |  | .85 | RP 125 |
| 1.001 | 1.50 |  |  |  |  | X | X | X | .98 | RP 150 |

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 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: MRP-20.00-20.00

## REST PADS

Type RPS
(Press Fit)


|  |  | $*$ C Lenth |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Dia. | B Dia. | .250 | .375 | .500 | .625 | .750 | 1.000 | 1.250 | D | E | CAD FILE NO. |
| .251 | .50 | X | X | X |  |  |  |  | .47 | .50 | RPS50 |
| .376 | .62 | X | X | X | X |  |  |  | .60 | .62 | RPS 62 |
| .501 | .75 |  | X | X | X | X |  |  | .60 | .75 | RPS 75 |
| .626 | 1.00 |  | X | X | X | X |  |  | .72 | 1.00 | RPS 100 |
| .751 | 1.25 |  |  | X |  | X | X |  | .85 | 1.25 | RPS 125 |
| 1.001 | 1.50 |  |  |  |  | X | X | X | .98 | 1.50 | RPS 150 |

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 Pad
$\frac{\mathrm{RPS}}{\mathrm{d}}-.751-.750$
*
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

## REST PADS



|  |  | * C Length |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Hex | B Thread | . 250 | . 375 | . 500 | . 625 | . 750 | 1.000 | 1.250 | D | E | CAD FILE NO. |
| . 38 | 1/4-20 | X | X | X | X |  |  |  | . 35 | . 43 | HP38 |
| . 50 | 3/8-16 |  | X | X | X | X |  |  | . 47 | . 58 | HP50 |
| . 62 | 1/2-13 |  | X | X | X | X |  |  | . 60 | . 72 | HP62 |
| . 75 | 1/2-13 |  |  | X |  | X | X |  | . 72 | . 86 | HP75 |
| 1.00 | 5/8-11 |  |  |  |  | X | X | X | . 98 | 1.15 | HP100 |
| . 38 | 1/4-28 | X | X | X | X |  |  |  | . 35 | . 43 | HP38 |
| . 50 | 3/8-24 |  | X | X | X | X |  |  | . 47 | . 58 | HP50 |
| . 62 | 1/2-20 |  | X | X | X | X |  |  | . 60 | . 72 | HP62 |
| . 75 | 1/2-20 |  |  | X |  | X | X |  | . 72 | . 86 | HP75 |
| 1.00 | 5/8-18 |  |  |  |  | X | X | X | . 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 $\frac{\mathrm{HP}}{\mathrm{l}}-.75-.750(-.50-3 / 8-16)$

Rest Pad Type
"A" Hex
"C" Length
"D" Length (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: MHP-20-20.00-12-M10-1.5

## REST PADS

Type HPS Type HPFS
(Hex Screw) (Hex Screw)
(Fine Thread)


|  |  | * 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 | X |  |  | . 47 | . 58 | . 50 | HPS50 |
| . 62 | 1/2-13 |  | X | X | X | X |  |  | . 60 | . 72 | . 62 | HPS62 |
| . 75 | 1/2-13 |  |  | X |  | X | X |  | . 72 | . 86 | 2.00 | HPS75 |
| 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 | X |  |  | . 60 | . 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 Development
Detail Standard Rest Pad $\underline{\mathrm{HPS}}-.75-.750(-.50-3 / 8-16)$
Rest Pad Type
"A" Hex
"C" Length
"D" Length (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


| Part No. | A | B | 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

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 <br> SEE PAGES F-2 \& F-7 FOR SHIMS



| Part No. | A | B | C | D | E | F | G | H | 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
(For Special Sizes)
Stop Block
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Soc. Hd. Scr.
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

# Detail Standard Co. 



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) SBSC-.62-1.00-2.38-1.625-.38-.50-.44-. $\frac{.38-.12}{1}$
Crowned Stop Block
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Soc. Hd. Scr.
"J" 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: MSBSC-18-25-60-20-20-12-10-10-3

# Detail Standard Co. 

## CROWNED STOP BLOCK - PRECISION HEIGHT



| Part No. | A | B | C | D | E | F | G | H | J | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SBSCP-101 | .500 | .62 | 1.50 | .750 | .38 | .31 | .38 | .25 | .06 | SBSC101 |
| SBSCP-102 | .625 | .62 | 2.00 | 1.250 | .38 | .31 | .50 | .31 | .06 | SBSC102 |
| SBSCP-103 | .750 | .62 | 1.25 | .625 | .31 | .31 | .42 | .25 | .06 | SBSC103 |
| SBSCP-104 | .750 | 1.00 | 2.00 | 1.120 | .44 | .50 | .57 | .31 | .12 | SBSC104 |
| SBSCP-105 | .750 | 2.50 | 2.00 | 1.120 | .44 | 1.25 | .57 | .31 | .12 | SBSC105 |
| SBSCP-106 | .875 | .62 | 1.50 | .750 | .38 | .31 | .50 | .31 | .06 | SBSC106 |
| SBSCP-107 | .875 | .62 | 2.00 | 1.250 | .38 | .31 | .56 | .31 | .12 | SBSC107 |
| SBSCP-108 | .875 | 1.00 | 1.62 | 1.000 | .31 | .50 | .50 | .31 | .06 | SBSC108 |
| SBSCP-109 | .875 | 1.00 | 2.38 | 1.625 | .38 | .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 | .38 | .62 | .75 | .38 | .12 | SBSC115 |

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) $\underline{\text { SBSCP }}-\underline{.625}-\underline{1.00}-\underline{2.38}-\underline{1.625}-.38-.50-.44-.38-.12$
Crowned Stop Block
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Soc. Hd. Scr.
"J" 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


| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SBSQ-101 | .750 | 1.50 | 1.50 | .750 | .38 | .38 | .750 | .31 |
| SBSQ-102 | .750 | 1.50 | 2.00 | 1.250 | .38 | .38 | .750 | .31 |
| SBSQ-103 | .750 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | .31 |
| SBSQ-104 | .750 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | .31 |
| SBSQ-105 | .750 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | .31 |
| SBSQ-106 | .750 | 2.00 | 3.38 | 2.625 | .38 | .50 | 1.000 | .38 |
| SBSQ-107 | .750 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | .31 |
| SBSQ-108 | .750 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | .31 |
| SBSQ-109 | .750 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | .38 |
| SBSQ-110 | 1.000 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | .31 |
| SBSQ-111 | 1.000 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | .31 |
| SBSQ-112 | 1.000 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | .31 |
| SBSQ-113 | 1.000 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | .31 |
| SBSQ-114 | 1.000 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | .31 |
| SBSQ-115 | 1.000 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | .38 |

Material: 1018 C.R.S.
Heat Treat: Carb. \& Hdn., Rock "C" 56-60, . 06 Min. Case
Finish: Black Oxide
Model Number Development (For Special Sizes)
Detail Standard Stop Block

Stop Block Four Holes

"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Screw Size
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: MSBSQ-25-50-60-34-13-10-30-6

# Detail Standard Co. 

STOP BLOCK CROWNED FOUR HOLES
Type SBSCQ

H
Soc
Hd. Scr.
(4) Holes


| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SBSCQ-101 | .750 | 1.50 | 1.50 | .750 | .38 | .38 | .750 | .31 |
| SBSCQ-102 | .750 | 1.50 | 2.00 | 1.250 | .38 | .38 | .750 | .31 |
| SBSCQ-103 | .750 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | .31 |
| SBSCQ-104 | .750 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | .31 |
| SBSCQ-105 | .750 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | .31 |
| SBSCQ-106 | .750 | 2.00 | 3.38 | 2.625 | .38 | .50 | 1.000 | .38 |
| SBSCQ-107 | .750 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | .31 |
| SBSCQ-108 | .750 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | .31 |
| SBSCQ-109 | .750 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | .38 |
| SBSCQ-110 | 1.000 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | .31 |
| SBSCQ-111 | 1.000 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | .31 |
| SBSCQ-112 | 1.000 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | .31 |
| SBSCQ-113 | 1.000 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | .31 |
| SBSCQ-114 | 1.000 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | .31 |
| SBSCQ-115 | 1.000 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | .38 |

Material: 1018 C.R.S.
Heat Treat: Carb. \& Hdn., Rock "C" 56-60, . 06 Min. Case
Finish: Black Oxide
Model Number Development (For Special Sizes)
Detail Standard Stop Block

Stop Block Crowned
Four Holes
"A" Dimension
"B" Dimension

"C" Dimension

"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Screw Size
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: MSBSCQ-25-50-60-34-13-10-30-6

TAPPED STOP BLOCK
Type SBT


| Part No. | A | B | C | D | E | F | G | H | 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
(For Special Sizes)
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: MSBT-18-25-60-34-13-12-10-M10×1.5

## Detail Standard Co.

## TAPPED STOP BLOCK - PRECISION HEIGHT



| Part No. | A | B | C | D | E | F | G | H | 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)
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-M10×1.5

## Detail Standard Co.

CROWNED STOP BLOCK
Type SBTC

SEE PAGES F-2 \& F-7 FOR SHIMS

| Part No. | A | B | C | 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
(For Special Sizes)
Crowned Stop Block $\underline{\mathrm{SBTC}}-.62-\underline{1.00}-\underline{2.38}-\underline{1.625}-.38-.50-.44-3 / 8-16-.12$
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Tap
" J " Dimension $\qquad$
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

## Detail Standard Co.

## CROWNED STOP BLOCK - PRECISION HEIGHT



| Part No. | A | B | C | D | E | F | G | H | 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
(For Special Sizes) SBTCP-.625-1.00-2.38-1.625-.38-.50-.44-3/8-16-.12 Crowned Stop Block
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Tap
"J" 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: MSBTCP-18-25-60-34-13-12-10-M10x1.5-3

## Detail Standard Co.



| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SBTQ-101 | .750 | 1.50 | 1.50 | .750 | .38 | .38 | .750 | $5 / 16-18$ |
| SBTQ-102 | .750 | 1.50 | 2.00 | 1.250 | .38 | .38 | .750 | $5 / 16-18$ |
| SBTQ-103 | .750 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTQ-104 | .750 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTQ-105 | .750 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | $5 / 16-18$ |
| SBTQ-106 | .750 | 2.00 | 3.38 | 2.625 | .38 | .50 | 1.000 | $3 / 8-16$ |
| SBTQ-107 | .750 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | $5 / 16-18$ |
| SBTQ-108 | .750 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | $5 / 16-18$ |
| SBTQ-109 | .750 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | $3 / 8-16$ |
| SBTQ-110 | 1.000 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTQ-111 | 1.000 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTQ-112 | 1.000 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | $5 / 16-18$ |
| SBTQ-113 | 1.000 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | $5 / 16-18$ |
| SBTQ-114 | 1.000 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | $5 / 16-18$ |
| SBTQ-115 | 1.000 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | $3 / 8-16$ |

Material: 1018 C.R.S.
Heat Treat: Cab. \& Han., Rock "C" 56-60, . 06 Min. Case
Finish: Black Oxide

## Model Number Development (For Special Sizes)

Detail Standard Stop Block
Stop Block Four Holes

"A" Dimension

"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
" $F$ " Dimension
"G" Dimension
"H" Tap Size
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: MSBTQ-25-50-60-34-13-10-30-M6x1

## Detail Standard Co.



| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SBTCQ-101 | .750 | 1.50 | 1.50 | .750 | .38 | .38 | .750 | $5 / 16-18$ |
| SBTCQ-102 | .750 | 1.50 | 2.00 | 1.250 | .38 | .38 | .750 | $5 / 16-18$ |
| SBTCQ-103 | .750 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTCQ-104 | .750 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTCQ-105 | .750 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | $5 / 16-18$ |
| SBTCQ-106 | .750 | 2.00 | 3.38 | 2.625 | .38 | .50 | 1.000 | $3 / 8-16$ |
| SBTCQ-107 | .750 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | $5 / 16-18$ |
| SBTCQ-108 | .750 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | $5 / 16-18$ |
| SBTCQ-109 | .750 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | $3 / 8-16$ |
| SBTCQ-110 | 1.000 | 2.00 | 2.25 | 1.250 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTCQ-111 | 1.000 | 2.00 | 3.00 | 2.000 | .50 | .50 | 1.000 | $5 / 16-18$ |
| SBTCQ-112 | 1.000 | 2.00 | 3.00 | 2.250 | .38 | .38 | 1.250 | $5 / 16-18$ |
| SBTCQ-113 | 1.000 | 2.00 | 3.50 | 2.000 | .75 | .56 | .875 | $5 / 16-18$ |
| SBTCQ-114 | 1.000 | 2.25 | 2.25 | 1.250 | .50 | .50 | 1.250 | $5 / 16-18$ |
| SBTCQ-115 | 1.000 | 2.25 | 3.25 | 2.500 | .38 | .38 | 1.500 | $3 / 8-16$ |

Material: 1018 C.R.S.
Heat Treat: Carb. \& Hdn., Rock "C" 56-60, . 06 Min. Case
Finish: Black Oxide
Model Number Development (For Special Sizes)
Detail Standard Stop Block
SBTCQ-1.00-2.00-2.38-1.375-. $\underline{10}-. \underline{50}-\underline{1.000-1 / 4-20}$
Stop Block Crowned $\qquad$
Four Holes
"A" Dimension

"B" Dimension

"C" Dimension

"E"

"F" Dimension
"G" Dimension
"H" Tap Size $\qquad$
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: MSBTCQ-25-50-60-34-13-10-30-M6x1

## FIXTURE KEY

Type DK


| Part No. | $A_{-.003}^{+.000}$ | B | C | 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 |


| Part No. | $\mathrm{A}_{-.004}^{+.000}$ | B | C | 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
Model Number Development
(For Special Sizes)
Fixture Key $\qquad$
"A" Dimension
"B" Dimension
"C" Dimension
"D" Soc. Hd. Scr.
"E" 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: MDK-12-12-30-6-8

## FIXTURE KEY

Type DKF


| Part No. | $A_{-.003}^{+.000}$ | B | C | 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 |


| Part No. | $\mathrm{A}_{-004}^{+.000}$ | B | C | D | E | 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
Model Number Development
(For Special Sizes)
Fixture Key
"A" Dimension
"B" Dimension
"C" Dimension
"D" Soc. Hd. Scr.
"E" 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: MDKF-12-12-30-6-8

## Detail Standard Co.

## PUSH-PULL BLOCK

Type PPI


Dia.thru
S.F. for dowel

| Part No. | A | B | C | D | E | F | G | H | 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

## Detail Standard Co.

## POSITIONING BLOCK

Type PBL


| Part No. | A | B | C | D | E | F | G | H | 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)

Detail Standard Positioning 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: MPBL-25-60-38-19-30-12-36-12-14-M12×1.75

## Detail Standard Co.

"D" WASHER

SEE PAGE E-28
FOR MORE SIZES


| Part No. | $A$ | $B$ | B TOL. | $C$ | $D$ | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $D-101$ | .88 | .28 | $\pm .010$ | .38 | .25 | D101 |
| $D-102$ | .88 | .41 | $\pm .010$ | .38 | .25 | D102 |
| $D-103$ | 1.00 | .28 | $\pm .010$ | .25 | .12 | D103 |
| $D-104$ | 1.00 | .28 | $\pm .010$ | .44 | .25 | D104 |
| $D-105$ | 1.00 | .378 | $\pm .002$ | .44 | .25 | D105 |
| $D-106$ | 1.00 | .41 | $\pm .010$ | .44 | .25 | D106 |
| $D-107$ | 1.00 | .53 | $\pm .010$ | .44 | .25 | D107 |
| $D-108$ | 1.25 | .28 | $\pm .010$ | .50 | .25 | D108 |
| $D-109$ | 1.25 | .41 | $\pm .010$ | .50 | .25 | D109 |
| $D-110$ | 1.25 | .41 | $\pm .010$ | .50 | .38 | D110 |
| $D-111$ | 1.25 | .503 | $\pm .002$ | .50 | .25 | D111 |
| $D-112$ | 1.25 | .53 | $\pm .010$ | .50 | .25 | D112 |
| $D-113$ | 1.25 | .53 | $\pm .010$ | .50 | .38 | D113 |
| $D-114$ | 1.25 | .69 | $\pm .010$ | .50 | .25 | D114 |
| $D-115$ | 1.25 | .69 | $\pm .010$ | .50 | .38 | D115 |


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

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: MD-50-20-20-12

## "D" WASHER



| Part No. | A | B | C | 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 |
| D-134 | 1.00 | . 38 | . 38 | . 14 | STEEL | 56ZM2359-2 | D134 |  |
|  |  |  |  |  |  | DSC-D-38 |  |  |
|  |  |  |  |  |  | FSD 14102 |  |  |
| D-135 | 1.00 | . 38 | . 38 | . 14 | STAINLESS | FSD 14102SS |  | D135 |
| D-136 | 1.25 | . 50 | . 50 | . 19 | STEEL | 56ZM2359-3 | D136 |  |
|  |  |  |  |  |  | DSC-D-12 |  |  |
|  |  |  |  |  |  | FSD 14103 |  |  |
| D-137 | 1.25 | . 50 | . 50 | . 19 | STAINLESS | FSD 14103SS |  | D137 |
| D-138 | 1.25 | . 50 | . 50 | . 19 | STEEL/ZINC | FSD $14103 Z$ |  | 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 |
| D-122 | 1.50 | . 75 | . 63 | . 25 | STEEL | 56ZF24981-34 | D122 |  |
|  |  |  |  |  |  | FSD 14239 |  |  |
|  |  |  |  |  |  | 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. | A | B | C | 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 |

SEE PAGE E-30 FOR NON-PRECISION SIZES

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
(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: MHDW-50-20-6

HARDENED WASHER
Type HW

## SEE PAGE E-29 FOR PRECISION SIZES



| Part No. | $A$ | B | C | 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 |


| Part No. | A | B | C | CAD FILE NO. |
| :--- | :---: | :---: | :---: | :---: |
| HW-119 | 1.62 | .78 | .12 | HDW119 |
| HW-120 | 1.62 | .78 | .19 | HDW120 |
| HW-121 | 1.75 | .78 | .19 | HDW121 |
| HW-122 | 2.00 | .78 | .19 | HDW122 |
| HW-123 | 1.18 | .94 | .09 | HDW123 |
| HW-124 | 2.00 | .94 | .12 | HDW124 |
| HW-125 | 2.00 | .94 | .19 | HDW125 |
| HW-126 | 2.25 | .94 | .19 | HDW126 |
| HW-127 | 1.56 | 1.03 | .12 | HDW127 |
| HW-128 | 1.56 | 1.03 | .19 | HDW128 |
| HW-129 | 2.00 | 1.03 | .12 | HDW129 |
| HW-130 | 2.00 | 1.03 | .19 | HDW130 |
| HW-131 | 2.25 | 1.03 | .19 | HDW131 |
| HW-132 | 2.50 | 1.03 | .25 | HDW132 |
| HW-133 | 2.50 | 1.15 | .25 | HDW133 |
| HW-134 | 2.00 | 1.28 | .19 | HDW134 |
| HW-135 | 2.50 | 1.28 | .25 | HDW135 |
| HW-136 | 3.00 | 1.28 | .25 | HDW136 |

Material: 1020 H.R.S.
Heat Treat: Carb. and Hardened, Rock "C" 55-60, . 03 Min. Case.
Finish: Black Oxide
Model Number Development
(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

# Detail Standard Co. 



| Part No. | A | B | C | 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. | A | B | C | 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


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

# Detail Standard Co. 



| Part No. | A | $\mathrm{B}_{-.001}^{+.000}$ | C | D | CAD FILE NO. | Part No. | A | $\mathrm{B}_{-.000}^{+.002}$ | C | D | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CSS-101 | . 44 | . 188 | . 25 | No.6X1/8 | CSS101 | CSS-122 | 2.25 | 1.501 | . 75 | 3/8×3/8 | CSS122 |
| CSS-102 | . 50 | . 251 | . 28 | No.6X1/8 | CSS102 | CSS-123 | 2.50 | 1.563 | . 81 | 3/8×3/8 | CSS123 |
| CSS-103 | . 62 | . 313 | . 34 | No.8×1/8 | 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 | $3 / 8 \times 3 / 8$ | 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 | $1 / 2 \times 1 / 2$ | CSS127 |
| CSS-107 | 1.00 | . 563 | . 44 | No.10X1/4 | CSS107 | CSS-128 | 2.75 | 1.876 | . 88 | $1 / 2 \times 1 / 2$ | CSS128 |
| CSS-108 | 1.12 | . 626 | . 50 | 1/4X1/4 | CSS108 | CSS-129 | 3.00 | 1.938 | . 88 | $1 / 2 \times 1 / 2$ | CSS129 |
| CSS-109 | 1.25 | . 688 | . 56 | 1/4X1/4 | CSS109 | CSS-130 | 3.00 | 2.001 | . 88 | $1 / 2 \times 1 / 2$ | CSS130 |
| CSS-110 | 1.25 | . 751 | . 56 | $1 / 4 \times 1 / 4$ | CSS110 | CSS-131 | 3.00 | 2.126 | . 88 | $1 / 2 \times 1 / 2$ | CSS131 |
| CSS-111 | 1.31 | . 813 | . 56 | 1/4×1/4 | CSS111 | CSS-132 | 3.25 | 2.188 | . 94 | $1 / 2 \times 1 / 2$ | 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 | $5 / 16 \times 1 / 4$ | 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 | $1 / 2 \times 1 / 2$ | 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 | 5/16×3/8 | CSS118 | CSS-139 | 4.00 | 2.688 | 1.12 | $1 / 2 \times 5 / 8$ | CSS139 |
| CSS-119 | 2.12 | 1.313 | . 68 | 3/8×3/8 | CSS116 | CSS-140 | 4.00 | 2.751 | 1.12 | $1 / 2 \times 5 / 8$ | CSS140 |
| CSS-120 | 2.12 | 1.376 | . 75 | 3/8×3/8 | 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.
Model Number Development
(For Special Sizes)
Collar Set Screw
"A" Diameter
"B" Diameter
"C" Thickness
"D" Cup Point Socket Set Screw
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-M10-1.5×12

## Detail Standard Co.

THREADED SET SCREW COLLAR
Type CST

Cup Point


Socket Set Screw

| Part No. | A | B | C | D | CAD FILE | Part No. | A | B | C | D | CAD FILE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CST-101 | . 44 | \#10-32 | . 25 | No.6X1/8 | CST101 | CST-122 | 2.25 | 1 1/2-6 | . 75 | 3/8×3/8 | CST122 |
| CST-102 | . 50 | 1/4-20 | . 28 | No.6X1/8 | CST102 | CST-123 | 2.50 | 1"-8 | . 81 | 3/8×3/8 | CST123 |
| CST-103 | . 62 | 5/16-18 | . 34 | No.8X1/8 | CST103 | CST-124 | 2.50 | 1 1/2-12 | . 81 | 3/8×3/8 | CST124 |
| CST-104 | . 75 | 3/8-16 | . 38 | No.10x3/16 | CST104 | CST-125 | 2.50 | $11 / 2-6$ | . 81 | 3/8×3/8 | CST125 |
| CST-105 | . 88 | 7/16-14 | . 44 | No.10X1/4 | CST105 | CST-126 | 2.75 | $11 / 2-12$ | . 88 | 1/2X1/2 | CST126 |
| CST-106 | 1.00 | 1/2-13 | . 44 | No.10×1/4 | CST106 | CST-127 | 2.75 | $13 / 4-5$ | . 88 | 1/2×1/2 | CST127 |
| CST-107 | 1.00 | 5/8-11 | . 44 | No.10×1/4 | CST107 | CST-128 | 2.75 | $13 / 4-12$ | . 88 | 1/2×1/2 | 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 | 1/4×1/4 | CST110 | CST-131 | 3.00 | 2"-12 | . 88 | 1/2×1/2 | CST131 |
| CST-111 | 1.31 | 3/4-10 | . 56 | 1/4X1/4 | CST111 | CST-132 | 3.25 | 3/4-10 | . 94 | 1/2×1/2 | 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 | 1/2×1/2 | CST134 |
| CST-114 | 1.62 | 1"-8 | . 62 | 5/16X1/4 | CST114 | CST-135 | 3.25 | 2"-12 | . 94 | 1/2×1/2 | CST135 |
| CST-115 | 1.75 | 1"-8 | . 62 | 5/16X1/4 | CST115 | CST-136 | 3.50 | 1"-8 | 1.00 | 1/2×1/2 | 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 | 5/16 3 /8 | CST117 | CST-138 | 3.75 | 2"-12 | 1.12 | 1/2×9/16 | CST138 |
| CST-118 | 2.00 | $11 / 4-7$ | . 68 | $5 / 16 \times 3 / 8$ | CST118 | CST-139 | 4.00 | 2"-12 | 1.12 | 1/2X5/8 | CST139 |
| CST-119 | 2.12 | $11 / 4-7$ | . 68 | 3/8×3/8 | CST116 | CST-140 | 4.00 | 2"-12 | 1.12 | 1/2X5/8 | CST140 |
| CST-120 | 2.12 | $11 / 4-7$ | . 75 | 3/8×3/8 | CST117 | CST-141 | 4.25 | 2"-12 | 1.12 | 1/2X5/8 | CST141 |
| CST-121 | 2.25 | $11 / 2-6$ | . 75 | 3/8×3/8 | 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.

Model Number Development
(For Special Sizes)
Collar Set Screw
"A" Diameter
"B" Thread Size
"C" Thickness
"D" Cup Point Socket Set Screw
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-M10-1.5×12

## Detail Standard Co.

## section F

SPACERS, PLATES \& PADS


| Part No. | A | B | C | 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
Model Number Development
(For Special Sizes)

"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Diameter

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

DOUBLE HOLE SHIM
Type DHS

## SEE PAGE F-7 FOR SLOTTED STYLE


(2) Holes

| Part No. | A | B | C | D | E | 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
Model Number Development
Detail Standard Double Hole Shim.
(For Special Sizes)
Double Hole Shim
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Diameter

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

# Detail Standard Co. 

## TRIPLE HOLE SHIM

Type THS

## SEE PAGE F-8 <br> FOR SLOTTED STYLE


(3) Holes

| Part No. | A | B | C | D | E | 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
Model Number Development
(For Special Sizes)
Triple Hole Shim
"A" Dimension $\square$
"B" Dimension

"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
" $H^{\prime \prime}$ Diameter
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

## Detail Standard Co.

FOUR HOLE SHIM
Type QHSL
SEE PAGE F-9
FOR SLOTTED STYLE


| Part No. | A | B | C | D | E | F | G | H | J |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| QHSL-101 | .12 | .75 | 2.00 | 1.312 | .875 | .438 | .34 | .38 | .28 |
| QHSL-102 | .25 | .75 | 2.00 | 1.312 | .875 | .438 | .34 | .38 | .28 |
| QHSL-103 | .12 | 1.00 | 2.50 | 1.500 | 1.000 | .500 | .50 | .50 | .34 |
| QHSL-104 | .25 | 1.00 | 2.50 | 1.500 | 1.000 | .500 | .50 | .50 | .34 |
| QHSL-105 | .25 | 1.25 | 3.00 | 1.750 | 1.250 | .625 | .62 | .62 | .41 |
| QHSL-106 | .25 | 1.25 | 3.50 | 2.250 | 1.500 | .750 | .62 | .62 | .41 |
| QHSL-107 | .25 | 1.50 | 3.00 | 1.750 | 1.250 | .625 | .50 | .62 | .41 |
| QHSL-108 | .25 | 1.50 | 4.00 | 2.625 | 1.750 | .875 | .68 | .75 | .53 |
| QHSL-109 | .25 | 2.00 | 4.00 | 3.000 | 2.000 | 1.000 | .50 | 1.00 | .41 |
| QHSL-110 | .25 | 2.00 | 4.00 | 2.625 | 1.750 | .875 | .68 | 1.00 | .53 |
| QHSL-111 | .25 | 2.00 | 5.00 | 3.375 | 2.250 | 1.125 | .81 | 1.00 | .53 |
| QHSL-112 | .25 | 2.50 | 5.00 | 3.375 | 2.250 | 1.125 | .81 | 1.25 | .53 |
| QHSL-113 | .38 | 2.50 | 5.00 | 3.750 | 2.500 | 1.250 | .62 | 1.25 | .68 |
| QHSL-114 | .25 | 3.00 | 6.00 | 3.750 | 2.500 | 1.250 | 1.12 | 1.50 | .68 |
| QHSL-115 | .38 | 3.00 | 6.00 | 3.750 | 2.500 | 1.250 | 1.12 | 1.50 | .81 |

Dia. thru
(4) Holes

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

Model Number Development
(For Special Sizes)
Four Hole Shim
"A" Dimension $\square$
"B" Dimension $\square$
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Dimension
"J" Diameter
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

## FOUR HOLE SHIM



| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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
Model Number Development
(For Special Sizes)
Four Hole Shim
"A" Dimension
"B" Dimension

"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
" $H$ " Diameter
Detail Standard Four Hole Shim.
$\underline{\mathrm{QHS}}-\underline{.50}-\underline{4.00}-\underline{8.00}-\underline{6.500}-\underline{.75}-\underline{.75}-\underline{2.500}-\underline{.68}$

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-12-100-200-160-20-20-60-17

## F-5

Type SLS


| Part No. | A | B | C | D | 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
Model Number Development
(For Special Sizes)
Single Slotted Shim $\qquad$
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Slot

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
F-6

## DOUBLE SLOTTED SHIM

Type DSLS

SEE PAGE F-2 FOR HOLE STYLE

(2) Plc's.

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

Material: 1018 C.R.S.
Finish: Black Oxide
Model Number Development
(For Special Sizes)
Double Slotted Shim
"A" Dimension

"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Slot

Detail Standard Double Slotted Shim. DSLS - $\underline{.38}-\underline{4.00}-\underline{6.00}-\underline{4.000}-\underline{1.00}-\underline{2.00}-\underline{.68}$

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

# Detail Standard Co. 

TRIPLE SLOTTED SHIM
SEE PAGE F-3
FOR HOLE STYLE
Type TSLS

(3) Plc's.

| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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.
(For Special Sizes) TSLS - .38- $3.00-\underline{6.00}-\underline{4.000-2.000-1.00-1.50-.81}$ Triple Slotted Shim
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" Dimension
"G" Dimension
"H" Slot
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

## Detail Standard Co.



Material: 1018 C.R.S.
Finish: Black Oxide
Model Number Development Detail Standard Four Slotted Shim.
(For Special Sizes) QSLS -. 25-1.25-6.00-4.500-3.500-1.00 -. $75-.62-.28$
Four Slotted Shim
"A" Dimension
"B" Dimension

"C" Dimension $\square$
"D" Dimension $\square$
"E" Dimension
"F" Dimension
"G" Dimension $\square$
"H" Dimension
"J" Slot
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. | A | B | C | 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
Model Number Development
Detail Standard Single Hole Tap Pad
(For Special Sizes)
Single Hole Tap
"A" Dimension
"B" Dimension
"C" Dimension
"D" Dimension
"E" Dimension
"F" 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: MSTP-20-50-76-32-25-M12-1.75

## Detail Standard Co.

## DOUBLE HOLE TAP PAD

Type DTP

(2) Holes

| Part No. | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DTP-101 | .38 | .75 | 1.50 | .750 | .38 | .38 | $1 / 4-20$ |
| DTP-102 | .50 | 1.00 | 2.00 | 1.250 | .38 | .50 | $5 / 16-18$ |
| DTP-103 | .50 | 1.00 | 2.50 | 1.500 | .50 | .50 | $3 / 8-16$ |
| DTP-104 | .50 | 1.00 | 3.00 | 2.000 | .50 | .50 | $3 / 8-16$ |
| DTP-105 | .50 | 1.50 | 3.00 | 2.000 | .50 | .75 | $3 / 8-16$ |
| DTP-106 | .50 | 1.25 | 3.50 | 2.500 | .50 | .62 | $3 / 8-16$ |
| DTP-107 | .75 | 2.00 | 3.50 | 2.500 | .50 | 1.00 | $3 / 8-16$ |
| DTP-108 | .50 | 1.50 | 4.00 | 3.000 | .50 | .75 | $3 / 8-16$ |
| DTP-109 | .75 | 2.00 | 4.00 | 2.500 | .75 | 1.00 | $1 / 2-13$ |
| DTP-110 | .62 | 1.50 | 4.50 | 3.000 | .75 | .75 | $1 / 2-13$ |
| DTP-111 | .75 | 2.00 | 4.50 | 3.000 | .75 | 1.00 | $5 / 8-11$ |
| DTP-112 | .62 | 2.00 | 5.00 | 3.500 | .75 | 1.00 | $1 / 2-13$ |
| DTP-113 | .75 | 3.00 | 5.00 | 3.000 | 1.00 | 1.50 | $5 / 8-11$ |
| DTP-114 | .62 | 3.50 | 6.00 | 4.750 | .62 | 1.75 | $1 / 2-13$ |
| DTP-115 | .75 | 4.00 | 6.00 | 4.000 | 1.00 | 2.00 | $5 / 8-11$ |

Material: 1018 C.R.S.
Finish: Black Oxide
Model Number Development Detail Standard Double Hole Tap Pad.
(For Special Sizes)
Double Hole Tap Pad
"A" Dimension
"B" Dimension

"C" Dimension

"D" Dimension
"E" Dimension
"F" Dimension
"G" 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: MDTP-20-100-150-100-25-50-M16-2

## Detail Standard Co.

## TRIPLE HOLE TAP PAD

Type TTP


| Part No. | A | B | C | D | E | F | G | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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.
(For Special Sizes)
Triple Hole Tap Pad
"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: MTP-25-76-150-100-50-25-32-M20-2.5

## Detail Standard Co.

## FOUR HOLE TAP PAD



Material: 1018 C.R.S.
Finish: Black Oxide
Model Number Development Detail Standard Four Hole 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: MQTPL-12-32-150-114-57-25-19-16-M12-1.75

# Detail Standard Co. 

## FOUR HOLE TAP PAD

Type QTP


| Part No. | A | B | C | D | E | F | G | H |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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
Model Number Development Detail Standard Four 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: MQTP-20-100-200-160-20-20-60-M14-2

## SECTION G

## AUTOMATION COMPONENTS

## Detail Standard Co.

## FLOATING ROD COUPLER

Type FRC

| Hex Thr <br> Hard Tub | x Jam readed $\square$ <br> Dia. <br> ened bing S | asher eve |  |  |  | Sleeve |  <br> Dime |  | 1.00 Min. <br> Mounting |  | G <br> IN <br> x. |  | UAL <br> Rod | E-3 \& E-30 L PARTS <br> Ref. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part No. | CyI. Rod. | Thread Size | A | Washer No. | G | O.D. | I.D. | B | Hole Dia. | F | C | D | E | CAD FILE NO. |
| FRC-101 | . 500 | 5/16-24 | . 625 | HW-101 | . 88 | . 750 | . 375 | . 562 | . 81 | . 50 | 4.00 | . 18 | . 18 | FRC101 |
| FRC-102 | N/A | 3/8-16 | N/A | HW-102 | 1.00 | . 812 | . 438 | . 687 | . 88 | . 62 | 5.00 | . 25 | . 25 | FRC102 |
| FRC-103 | . 625 | 7/16-20 | . 750 | HW-103 | 1.12 | . 875 | . 500 | . 812 | . 94 | . 75 | 5.00 | . 25 | . 31 | FRC103 |
| FRC-104 | N/A | 1/2-13 | N/A | HW-106 | 1.25 | . 938 | . 562 | 1.062 | 1.00 | 1.00 | 6.00 | . 31 | . 38 | FRC104 |
| FRC-105 | N/A | 1/2-20 | N/A | HW-106 | 1.25 | . 938 | . 562 | 1.062 | 1.00 | 1.00 | 6.00 | . 31 | . 38 | FRC105 |
| FRC-106 | N/A | 5/8-11 | N/A | HW-114 | 1.50 | 1.125 | . 688 | 1.062 | 1.18 | 1.00 | 6.00 | . 38 | . 50 | FRC106 |
| FRC-107 | N/A | 5/8-18 | N/A | HW-114 | 1.50 | 1.125 | . 688 | 1.062 | 1.18 | 1.00 | 6.00 | . 38 | . 50 | FRC107 |
| FRC-108 | 1.000 | 3/4-16 | 1.125 | HW-120 | 1.62 | 1.250 | . 812 | 1.312 | 1.32 | 1.25 | 6.00 | . 50 | . 62 | FRC108 |
| FRC-109 | 1.375 | 1-14 | 1.625 | HW-130 | 2.00 | 1.500 | 1.062 | 1.562 | 1.56 | 1.50 | 7.00 | . 50 | 75 | FRC109 |
| FRC-110 | 1.750 | $11 / 4-12$ | 2.000 | HW-135 | 2.50 | 1.750 | 1.312 | 2.062 | 1.81 | 2.00 | 8.00 | . 50 | 1.00 | FRC110 |

## Threaded Rod

Material: Alloy Steel (Stud Stock) ASTM Spec. A-193
Heat Treat: Brinell 275-310 Stress Relieved
Finish: Black Oxide
Tubing Spacer
Material: Welded D.O.M. 1020/1026 Steel or Cold Drawn Seamless
Heat Treat: None
Finish: Black Oxide
Hardened Washer
Material: 1020 H.R.S.
Heat Treat: Carb. And Han., Rock "C" 55-60, . 03 Min . Case.
Finish: Black Oxide
Model Number Development
(For Special Sizes)

Detail Standard Floating Rod Coupler
FRC-1-14-HW-130-1.50-1.062-1.562-6.00

Floating Rod Coupler
Thread Size
Hardened Washer
Outside Diameter Sleeve
Inside Diameter Sleeve
"B" Length
"C" Length
NOTE: Sizes in chart above are standard.Other sizes may be ordered as "special" items using "Model Number Development" format,

## 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 |  | $H S N-104$ | $B P L-104$ |



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 |  |  |
| 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 |  |  |
| 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 |  |  |
| 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 |  |  |

## Detail Standard Co.

FLOATING ROD COUPLER


| Part No. | Style | A | B | $C$ | D | $E$ | $F$ | $G$ | $H$ | $J$ | K |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\mathrm{CL}-101$ | $\mathrm{EX}-101 \mathrm{~N}$ | $\mathrm{HSN}-101$ | $\mathrm{BPL}-101$ |
| FMC-102R | RAP | $\mathrm{CL}-102$ | $\mathrm{EX}-102 \mathrm{R}$ | $\mathrm{HSN}-102$ | $\mathrm{BPL}-102$ |
| FMC-102N | NON-RAP | $\mathrm{CL}-102$ | $\mathrm{EX}-102 \mathrm{~N}$ | $\mathrm{HSN}-102$ | $\mathrm{BPL}-102$ |
| FMC-103R | RAP | $\mathrm{CL}-103$ | $\mathrm{EX}-103 \mathrm{R}$ | $\mathrm{HSN}-103$ | $\mathrm{BPL}-103$ |
| FMC-103N | NON-RAP | $\mathrm{CL}-103$ | $\mathrm{EX}-103 \mathrm{~N}$ | $\mathrm{HSN}-103$ | $\mathrm{BPL}-103$ |

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 <br> No. | Style | A | B | C | D | E | F | G | H | J | K |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $M 10 \times 1.25$ | .88 | 1.25 | .432 | .875 | 2.50 | .44 | .18 |
| EX-101N-M1 | NON-RAP | .88 | 1.12 | $M 10 \times 1.25$ | .88 | 1.25 | .680 | .875 | 2.50 | .44 | .18 |
| EX-101R-M2 | RAP | .88 | 1.12 | $M 12 \times 1.25$ | .88 | 1.25 | .432 | .875 | 2.50 | .44 | .18 |
| EX-101N-M2 | NON-RAP | .88 | 1.12 | $M 12 \times 1.25$ | .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 | $M 16 \times 1.5$ | 1.25 | 1.75 | .750 | 1.250 | 3.62 | .75 | .18 |
| EX-102N-M1 | NON-RAP | 1.25 | 1.50 | $M 16 \times 1.5$ | 1.25 | 1.75 | .993 | 1.250 | 3.62 | .75 | .18 |
| EX-102R-M2 | RAP | 1.25 | 1.50 | $M 20 \times 1.5$ | 1.25 | 1.75 | .750 | 1.250 | 3.62 | .75 | .18 |
| EX-102N-M2 | NON-RAP | 1.25 | 1.50 | $M 20 \times 1.5$ | 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 | $M 27 \times 2$ | 1.75 | 2.38 | .870 | 1.500 | 4.50 | 1.00 | .25 |
| EX-103N-M1 | NON-RAP | 1.50 | 1.75 | $M 27 \times 2$ | 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

7/32 Dia. Thru
2 Holes


| Part No. | A | B | C | Used With |
| :---: | :---: | :---: | :---: | :---: |
| $\mathrm{CL}-101$ | 1.12 | .750 | .18 | FMC-101R \& N |
| $\mathrm{CL}-102$ | 1.50 | 1.125 | .18 | FMC-102R \& N |
| $\mathrm{CL}-103$ | 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 <br> No. | Style | A | B | C | D | E | F | G | H | J | K |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $1^{\prime \prime}-14$ | 1.50 | 2.75 | .875 | 1.50 | 4.25 | 1.00 | .62 |
| CAM-103N | NON-RAP | 1.38 | 1.25 | $1^{\prime \prime}-14$ | 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 <br> No. | Style | A | B | $C$ | D | E | F | G | $H$ | $J$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $11 / 4-12$ | 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

## Detail Standard Co.

## CYLINDER COUPLER ADAPTER

Type CCA
SEE PAGE G-2
FOR ASSEMBLY MATRIX


| Part No. | A | B | C | D | E | F | G | H | J | K | L | M |
| :---: | :---: | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $1^{n}-14$ | .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


H Soc. Hd. Screw
3 Holes

| Part No. | A | B | 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 | B | C | 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 <br> Type MCAM

SEE PAGE G-2 FOR ASSEMBLY MATRIX


## METRIC CYLINDER ADAPTER FEMALE <br> Type MCAF

SEE PAGE G-2 FOR ASSEMBLY MATRIX


| Part <br> No. | Style | A | B | $C$ | D | $E$ | $F$ | $G$ | $H$ | $J$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MCAF-102R | RAP | 20.0 | 16.0 | $M 10 \times 1.25$ | 25.0 | 25.0 | 20.00 | 32.0 | 60.0 | 12.0 |
| MCAF-102N | NON-RAP | 20.0 | 16.0 | $M 10 \times 1.25$ | 25.0 | 25.0 | 24.80 | 32.0 | 65.0 | 12.0 |
| MCAF-103R | RAP | 20.0 | 16.0 | $M 12 \times 1.25$ | 25.0 | 25.0 | 20.00 | 32.0 | 60.0 | 12.0 |
| MCAF-103N | NON-RAP | 20.0 | 16.0 | $M 12 \times 1.25$ | 25.0 | 25.0 | 24.80 | 32.0 | 65.0 | 12.0 |
| MCAF-104R | RAP | 25.0 | 22.0 | $M 14 \times 1.5$ | 32.0 | 25.0 | 25.00 | 40.0 | 70.0 | 14.0 |
| MCAF-104N | NON-RAP | 25.0 | 22.0 | $M 14 \times 1.5$ | 32.0 | 25.0 | 29.80 | 40.0 | 75.0 | 14.0 |
| MCAF-105R | RAP | 25.0 | 22.0 | $M 16 \times 1.5$ | 32.0 | 25.0 | 25.00 | 40.0 | 70.0 | 14.0 |
| MCAF-105N | NON-RAP | 25.0 | 22.0 | $M 16 \times 1.5$ | 32.0 | 25.0 | 29.80 | 40.0 | 75.0 | 14.0 |
| MCAF-107R | RAP | 35.0 | 32.0 | $M 20 \times 1.5$ | 40.0 | 45.0 | 25.00 | 55.0 | 100.0 | 15.0 |
| MCAF-107N | NON-RAP | 35.0 | 32.0 | $M 20 \times 1.5$ | 40.0 | 45.0 | 29.80 | 55.0 | 105.0 | 15.0 |
| MCAF-109R | RAP | 45.0 | 38.0 | $M 27 \times 2$ | 55.0 | 65.0 | 30.00 | 63.0 | 115.0 | 14.0 |
| MCAF-109N | NON-RAP | 45.0 | 38.0 | $M 27 \times 2$ | 55.0 | 65.0 | 34.80 | 63.0 | 120.0 | 14.0 |
| MCAF-110R | RAP | 45.0 | 38.0 | $M 33 \times 2$ | 48.0 | 65.0 | 30.00 | 63.0 | 115.0 | 14.0 |
| MCAF-11ON | NON-RAP | 45.0 | 38.0 | $M 33 \times 2$ | 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

## Detail Standard Co.

## METRIC CYLINDER COUPLER ADAPTER

Type MCCA
SEE PAGE G-2 FOR ASSEMBLY MATRIX


| Part No. | A | B | C | D | E | F | G | H | $J$ | K | L | 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 | M $12 \times 1.25$ | 12.0 | 20.00 | 14.0 | 24.00 | 42.0 | 10.0 | 18.0 | 32.0 | 12.0 |
| MCCA-104 | 50.0 | 75.0 | M14×1.5 | 20.0 | 25.00 | 22.0 | 35.00 | 55.0 | 10.0 | 20.0 | 45.0 | 17.5 |
| MCCA-105 | 50.0 | 75.0 | M16×1.5 | 20.0 | 25.00 | 22.0 | 35.00 | 55.0 | 10.0 | 20.0 | 45.0 | 17.5 |
| MCCA-106 | 50.0 | 80.0 | M18×1.5 | 20.0 | 25.00 | 22.0 | 35.00 | 55.0 | 10.0 | 25.0 | 45.0 | 17.5 |
| MCCA-107 | 50.0 | 80.0 | M $20 \times 1.5$ | 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 | M $30 \times 2.0$ | 30.0 | 30.00 | 37.0 | 57.00 | 80.0 | 20.0 | 40.0 | 80.0 | 28.5 |
| MCCA-111 | 100.0 | 120.0 | M $33 \times 2.0$ | 30.0 | 30.00 | 37.0 | 57.00 | 80.0 | 20.0 | 45.0 | 80.0 | 28.5 |

Material: 12 L 14 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 | B | C | D | E | F | G | H |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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: 12 L14 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. | A | B | C | 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

## Detail Standard Co.

CLEVIS ASSEMBLY
Type CAN

SEE PAGES G-17 TO G-19 FOR INDIVIDUAL PARTS

Z

| Part No. | A | B | C | D | E | F | G | H | J | K | L | M |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $11 / 4-12$ | 3.00 | 7.00 | 3.00 | 5.62 | 2.25 | 1.38 | 1.265 | 1.750 | 1.94 | 2.25 | .38 |
| CAN-108 | $11 / 2-12$ | 3.00 | 7.00 | 3.00 | 5.62 | 2.25 | 1.38 | 1.265 | 1.750 | 1.94 | 2.25 | .38 |
| CAN-109 | $13 / 4-12$ | 3.00 | 7.50 | 4.50 | 6.00 | 2.25 | 1.50 | 2.265 | 1.875 | 2.50 | 3.00 | .38 |
| CAN-110 | $17 / 8-12$ | 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 | $\mathrm{KPH}-.375-1.50-2 \mathrm{~K}-11$ | CTW-101 | CBG-101 |
| CAN-102 | CVS-102 | $\mathrm{KPH}-.625-2.00-2 \mathrm{~K}-11$ | CTW-102 | CBG-102 |
| CAN-103 | CVS-103 | $\mathrm{KPH}-.625-2.00-2 \mathrm{~K}-11$ | CTW-102 | CBG-102 |
| CAN-104 | CVS-104 | $\mathrm{KPH}-.750-2.50-2 \mathrm{~K}-11$ | CTW-103 | CBG-103 |
| CAN-105 | CVS-105 | $\mathrm{KPH}-1.000-2.50-2 \mathrm{~K}-11$ | CTW-104 | CBG-104 |
| CAN-106 | CVS-106 | $\mathrm{KPH}-1.000-2.50-2 \mathrm{~K}-11$ | CTW-104 | CBG-104 |
| CAN-107 | CVS-107 | $\mathrm{KPHH}-1.375-3.00$ | CTW-105 | CBG-105 |
| CAN-108 | CVS-108 | $\mathrm{KPHH}-1.375-3.00$ | CTW-105 | CBG-105 |
| CAN-109 | CVS-109 | $\mathrm{KPHH-1.500-4.50}$ | CTW-106 | CBG-106 |
| CAN-110 | CVS-110 | $\mathrm{KPHH}-1.500-4.50$ | 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)

## Detail Standard Co.

```
SEE PAGE G-16 FOR COMPLETE ASSEMBLY
```


## CLEVIS

Type CVS


| Port No. | A | B | C | D | $E$ | $F$ | G | H | $J$ | $K$ | $L$ | M | N | $P \text { SOCKET } \begin{aligned} & \text { HEAD SCREW } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CVS-101 | 5/16-24 | 1.25 | 2.62 | 1.50 | 2.12 | . 88 | 376 | . 780 | . 36 | . 437 | . 500 | . 38 | 1/4-20 THRU | $1 / 4-20 \times 3 / 4$ |
| 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 | $5 / 16-18 \times 7 / 8$ |
| CVS-103 | 1/2-20 | 1.50 | 3.00 | 2.0 | 2.25 | . 75 | . 626 | 1.030 | . 49 | . 562 | . 500 | . 50 | 1/4-20 THRU | $5 / 16-18 \times 7 / 8$ |
| CVS-104 | 3/4-16 | 2.00 | 4.38 | 2.50 | 3.38 | 1.12 | . 751 | 1.280 | . 61 | . 625 | . 500 | . 62 | $1 / 4-20 \times 1 / 2$ | $3 / 8-16 \times 1 / 4$ |
| CVS-105 | 7/8-14 | 2.00 | 4.88 | 2.5 | 3.88 | 1.62 | 1.001 | 1.280 | . 61 | . 750 | . 500 | . 62 | $1 / 4-20 \times 1 / 2$ | $3 / 8-16 \times 11 / 4$ |
| CVS-106 | 1-14 | 2.0 | 4.88 | 2.50 | 3.88 | 1.6 | 1.0 | 1.280 | . 6 | . 750 | . 500 | . 62 | $1 / 4-20 \times 1 / 2$ | $3 / 8-16 \times 11 / 4$ |
| 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 | $3 / 8-16 \times 13 / 4$ |
| CVS-108 | 1 1/2-12 | 3.00 | 7.00 | 3.0 | 5.62 | 2.25 | 1.376 | 1.530 | . 74 | 1.06 | . 750 | . 75 | 3/8-16 THRU | $3 / 8-16 \times 13 / 4$ |
| CVS-109 | $13 / 4-12$ | 3.00 | 7.50 | 4.5 | 6.00 | 2.25 | 1.501 | 2.530 | . 99 | 1.125 | . 750 | . 75 | $3 / 8-16 \times 3 / 4$ | $3 / 8-16 \times 13 / 4$ |
| CVS-110 | $17 / 8-12$ | 3.00 | 8.50 | 4.50 | 7.00 | 3.25 | 1.501 | 2.530 | . 99 | 1.125 | . 750 | . 75 | $3 / 8-16 \times 3 / 4$ | $3 / 8-16 \times 13 / 4$ |

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

## BEARING

SEE PAGE G-16
FOR COMPLETE ASSEMBLY


| Part No. | A | B | $C$ |
| :--- | ---: | ---: | ---: |
| 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) | $\|c\|$ <br> SAE 863 <br> $($ CBG-101 <br> 102 ONLY) | SO-16 <br> (ALL OTHERS) |
| :--- | :--- | :--- |
| COPPER | $18.0-22.0$ | $18.0-22.0$ |
| IRON | BALANCE | BALANCE |
| CARBON | - | $0.6-1.0$ |
| TIN | - | - |
| 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 O.D.)

$$
\text { CBG-101 to CBG-106 } \pm .003 \text { T.I.R. }
$$

THRUSTWASHER
Type CTW
SEE PAGE G-16
FOR COMPLETE ASSEMBLY



| Port No. | A | B | 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 | $\mathbf{1 2 5}$ |


| COMPOSITION: (percent) | SAE 863 |
| :--- | :--- |
| COPPER | $18.0-22.0$ |
| IRON | BALANCE |
| CARBON | - |
| 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

| Cylinder Information |  |  | Switch Dog | Switch Rod | Cylinder Information |  |  | Switch Dog | Switch Rod |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bore \& Type | Rod Dia. | Thread Size |  |  | Bore \& Type | Rod Dia. | Thread Size |  |  |
| $1^{\prime \prime}$-AIR | $1 / 2$ | 5/16-24 | SD-101 | SR-101-X | 25mm-HYD | 12.0 | M8×1.0 | MSD-101 | MSR-101-X |
| $1^{\prime \prime}$-AIR | 5/8 | 7/16-20 | SD-102 | SR-102-X | $25 \mathrm{~mm}-\mathrm{HYD}$ | 18.0 | M $12 \times 1.25$ | MSD-103 | MSR-103-X |
| $11 / 2-A I R$ | 5/8 | 7/16-20 | SD-102 | SR-102-X | 32 mm -AIR | 12.0 | M8×1.0 | MSD-101 | MSR-101-X |
| $11 / 2-A 1 R$ | 1 | 3/4-16 | SD-103 | SR-103-X | $32 \mathrm{~mm}-\mathrm{HYD}$ | 14.0 | M10×1.25 | MSD-102 | MSR-102-X |
| $11 / 2-H Y D$ | 5/8 | 7/16-20 | SD-102 | SR-102-X | $32 \mathrm{~mm}-\mathrm{HYD}$ | 22.0 | M16 1.5 | MSD-105 | MSR-105-X |
| $11 / 2-H Y D$ | 1 | 3/4-16 | SD-103 | SR-103-X | 40 mm -AIR | 16.0 | M10x1.25 | MSD-102 | MSR-102-X |
| 2"-AIR | 5/8 | 7/16-20 | SD-102 | SR-102-X | $40 \mathrm{~mm}-\mathrm{HYD}$ | 18.0 | $\mathrm{M} 12 \times 1.25$ | MSD-103 | MSR-103-X |
| $2^{\prime \prime}$-AIR | 1 | 3/4-16 | SD-103 | SR-103-X | $40 \mathrm{~mm}-\mathrm{HYD}$ | 28.0 | $\mathrm{M} 20 \times 1.5$ | MSD-107 | MSR-107-x |
| 2"-HYD | 1 | 3/4-16 | SD-103 | SR-103-X | 50 mm -AIR | 20.0 | M14×1.5 | MSD-104 | MSR-104-X |
| $2^{\prime \prime}-\mathrm{HYD}$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X | $50 \mathrm{~mm}-\mathrm{HYD}$ | 22.0 | M16 1.5 | MSD-105 | MSR-105-X |
| $21 / 2-A I R$ | 5/8 | 7/16-20 | SD-102 | SR-102-X | $50 \mathrm{~mm}-\mathrm{HYD}$ | 28.0 | M $20 \times 1.5$ | MSD-107 | MSR-107-X |
| $21 / 2-A I R$ | 1 | 3/4-16 | SD-103 | SR-103-X | $50 \mathrm{~mm}-\mathrm{HYD}$ | 36.0 | $\mathrm{M} 27 \times 2.0$ | MSD-109 | MSR-109-X |
| $21 / 2-A I R$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X | 63 mm -AIR | 20.0 | M14×1.5 | MSD-104 | MSR-104-X |
| $21 / 2-H Y D$ | 1 | 3/4-16 | SD-103 | SR-103-X | $63 \mathrm{~mm}-\mathrm{HYD}$ | 28.0 | M $20 \times 1.5$ | MSD-107 | MSR-107-X |
| $21 / 2-H Y D$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X | $63 \mathrm{~mm}-\mathrm{HYD}$ | 36.0 | M $27 \times 2.0$ | MSD-109 | MSR-109-X |
| $31 / 4-A / R$ | 1 | 3/4-16 | SD-103 | SR-103-X | 80 mm -AlR | 25.0 | M18×1.5 | MSD-106 | MSR-106-X |
| $31 / 4-A 1 R$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X | 80 mm -HYD | 36.0 | M $27 \times 2.0$ | MSD-109 | MSR-109-X |
| $31 / 4-H Y D$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X | 100 mm -AIR | 25.0 | M18×1.5 | MSD-106 | MSR-106-X |
| $4^{\prime \prime}-$ AIR | 1 | 3/4-16 | SD-103 | SR-103-X | 125 mm -AIR | 32.0 | M $24 \times 2.0$ | MSD-108 | MSR-108-X |
| $4^{\prime \prime}$-AIR | $13 / 8$ | 1-14 | SD-104 | SR-104-X |  |  |  |  |  |
| $5^{n}-\mathrm{AlR}$ | 1 | 3/4-16 | SD-103 | SR-103-X |  |  |  |  |  |
| $5^{\prime \prime}$-AIR | $13 / 8$ | 1-14 | SD-104 | SR-104-X |  |  |  |  |  |
| $6^{\prime \prime}-\mathrm{AlR}$ | $13 / 8$ | 1-14 | SD-104 | SR-104-X |  |  |  |  |  |

## Detail Standard Co.



Socket Set Screw

INCH

| Part No. | A | B | C |
| :--- | :--- | :---: | :---: |
| SD-101 | 1.50 | .50 | $5 / 16-24$ |
| $S D-102$ | 2.00 | .62 | $7 / 16-20$ |
| SD-103 | 2.50 | .62 | $3 / 4-16$ |
| $S D-104$ | 3.00 | .62 | $1^{\prime \prime}-14$ |

METRIC

| Port No. | A | B | C |
| :---: | :---: | :---: | :---: |
| MSD-101 | 38.0 | 13.0 | $\mathrm{M} 8 \times 1.0$ |
| MSD-102 | 50.0 | 16.0 | $\mathrm{M} 10 \times 1.25$ |
| MSD-103 | 50.0 | 16.0 | $\mathrm{M} 12 \times 1.25$ |
| MSD-104 | 63.0 | 16.0 | $\mathrm{M} 14 \times 1.5$ |
| MSD-105 | 63.0 | 16.0 | $\mathrm{M} 16 \times 1.5$ |
| MSD-106 | 63.0 | 16.0 | $\mathrm{M} 18 \times 1.5$ |
| MSD-107 | 63.0 | 16.0 | $\mathrm{M} 20 \times 1.5$ |
| MSD-108 | 75.0 | 16.0 | $\mathrm{M} 24 \times 2.0$ |
| MSD-109 | 75.0 | 16.0 | $\mathrm{M} 27 \times 2.0$ |

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

## Detail Standard Co.

SWITCH ROD \& METRIC SWITCH ROD<br>Type SR \& MSR

SEE PAGE G-20
FOR ASSEMBLY MATRIX


INCH

| Part No. | A Thread | B |
| :--- | :--- | :--- |
| SR-101 | $5 / 16-24$ | .25 |
| SR-102 | $7 / 16-20$ | .31 |
| SR-103 | $3 / 4-16$ | .50 |
| SR-104 | $1^{\prime}-14$ | .75 |

Available $5^{\prime \prime}$ thru 12"
in 1" Increments

METRIC

| Part No. | A Thread | B |
| :--- | :--- | ---: |
| MSR-101 | M8 $\times 1$ | 5.0 |
| MSR-102 | M10 1.25 | 6.0 |
| MSR-103 | M12 $\times 1.25$ | 8.0 |
| MSR-104 | M14×1.5 | 10.0 |
| MSR-105 | $M 16 \times 1.5$ | 12.0 |
| MSR-106 | M18×1.5 | 14.0 |
| MSR-107 | $M 20 \times 1.5$ | 16.0 |
| MSR-108 | $M 24 \times 2.0$ | 20.0 |
| MSR-109 | $M 27 \times 2.0$ | 22.0 |

Available 130.0 thru 300.0
in 10.0 mm Increments

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


## Detail Standard Co.

## CYLINDER MOUNT PROXIMITY SWITCH BRACKET

Type CMPSB


| Part No. | Cylinder Bore \& Type | A | B | C | D | E | F | G | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CMPSB-101 | 1.50 Bore, Air | 1.500 | 2.625 | 1.625 | 1.482 | .625 | .281 | .875 | 2.000 |
| CMPSB-102 | 2.00 Bore, Air | 1.500 | 2.625 | 1.625 | 1.838 | .750 | .344 | .875 | 2.500 |
| CMPSB-103 | 2.50 Bore, Air | 1.500 | 2.625 | 1.625 | 2.192 | .875 | .344 | 1.125 | 3.000 |
| CMPSB-104 | 1.50 Bore, Hyd. | 1.875 | 3.500 | 2.000 | 1.625 | .875 | .406 | .875 | 2.500 |
| CMPSB-105 | 2.00 Bore, Hyd. | 2.000 | 3.500 | 2.000 | 2.050 | 1.000 | .531 | 1.125 | 3.000 |
| CMPSB-106 | 2.50 Bore, Hyd. | 1.750 | 3.500 | 2.000 | 2.550 | 1.000 | .531 | 1.125 | 3.500 |

Model Number Development Detail Standard Cylinder Proximity Switch Bracket
Part Number
Cylinder Stroke
Proximity Switch Size
Material

$$
C=\text { Material: } 1018 \text { C.R.S., Heat Treat: None, Finish: Black Oxide }
$$

$A=$ Material: Alumminum, Heat Treat: None, Finish: Natural Finish
$S=$ Material: Stainless Steel, Heat Treat: None, Finish: Natural Finish
NOTE: This Bracket Will Accommodate $8 \mathrm{~mm}, 12 \mathrm{~mm}$ \& 18 mm Proximity Switch's

## Detail Standard Co.

## CYLINDER MOUNT PROXIMITY SWITCH BRACKET

Type CMPSB


| Part No. | Cylinder Bore \& Type | A | B | C | 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

$$
C=\text { Material: } 1018 \text { C.R.S., Heat Treat: None, Finish: Black Oxide }
$$

$A=$ Material: Alumminum, Heat Treat: None, Finish: Natural Finish
S = Material: Stainless Steel, Heat Treat: None, Finish: Natural Finish
NOTE: This Bracket Will Accommodate $8 \mathrm{~mm}, 12 \mathrm{~mm}$ \& 18 mm Proximity Switch's

## Detail Standard Co.

## METRIC CYLINDER MOUNT PROXIMITY SWITCH BRACKET

Type MCMPSB


Model Number Development
Metric Cylinder Proximity Switch Bracket MCMPSB-101 $-\frac{50.0}{18}-18 \mathrm{~mm}-\mathrm{C}$
Part Number
Cylinder Stroke
Proximity Switch Size
Material

$$
C=\text { Material: } 1018 \text { C.R.S., Heat Treat: None, Finish: Black Oxide }
$$

$A=$ Material: Alumminum, Heat Treat: None, Finish: Natural Finish
$S=$ Material: Stainless Steel, Heat Treat: None, Finish: Natural Finish
NOTE: This Bracket Will Accommodate $8 \mathrm{~mm}, 12 \mathrm{~mm}$ \& 18 mm Proximity Switch's

## Detail Standard Co.

## METRIC CYLINDER MOUNT PROXIMITY SWITCH BRACKET

Type MCMPSB


| Part No. | Cylinder Bore \& Type | A | B | C | D | $E$ | $F$ |  | $H$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MCMPSB-109 | 80 mm Bore, Air | 38.1 | 85.0 | 50.0 | 72.0 | 27.4 | 6.8 |  | 99.4 |
| MCMPSB-110 | 100 mm Bore, Air | 29.4 | 90.0 | 50.0 | 89.0 | 27.0 | 6.8 |  | 116.0 |
| MCMPSB-111 | 125 mm Bore, Air | 25.9 | 105.0 | 50.0 | 110.0 | 29.0 | 8.8 |  | 139.0 |
| MCMPSB-112 | 63 mm Bore, Hyd. | 38.1 | 90.0 | 50.0 | 64.3 | 25.7 | 12.8 |  | 90.0 |
| MCMPSB-113 | 80 mm Bore, Hyd. | 38.1 | 90.0 | 50.0 | 82.7 | 32.3 | 16.8 |  | 115.0 |

## Model Number Development

Part Number
Cylinder Stroke
Proximity Switch Size
Material
C = Material: 1018 C.R.S., Heat Treat: None, Finish: Black Oxide
A $=$ Material: Alumminum, Heat Treat: None, Finish: Natural Finish $\mathrm{S}=$ Material: Stainless Steel, Heat Treat: None, Finish: Natural Finish NOTE: This Bracket Will Accommodate $8 \mathrm{~mm}, 12 \mathrm{~mm}$ \& 18 mm Proximity Switch's

$C=$ Material: 1018 C.R.S., Finish: Black Oxide
$A=$ Material: Aluminum, Finish: Natual
S = Material: Stainless Steel, Finish: Natual
Model Number Development
Stright Prox Switch Bracket
"A" Dim. in Millimeters
Proximity Switch Size
Material

$C=$ Material: 1018 C.R.S., Finish: Black Oxide
$A=$ Material: Aluminum, Finish: Natual
S = Material: Stainless Steel, Finish: Natual
Model Number Development
Stright Prox Switch Bracket
"A" Dim. in Millimeters
"B" Dim. in Millimeters
Proximity Switch Size
Material

## Detail Standard Co.

## BENT PROX SWITCH BRACKET

Type BPSB-101

$C=$ Material: 1018 C.R.S., Finish: Black Oxide
$A=$ Material: Aluminum, Finish: Natual
S = Material: Stainless Steel, Finish: Natual
Model Number Development
Bent Prox Switch Bracket
"A" Dim. in Millimeters


# Detail Standard Co. 

## BENT PROX SWITCH BRACKET

Type BPSB-102


C $=$ Material: 1018 C.R.S., Finish: Black Oxide
$A=$ Material: Aluminum, Finish: Natual
$S=$ Material: Stainless Steel, Finish: Natual
Model Number Development
Bent Prox Switch Bracket
"A" Dim. in Millimeters
" $B$ " Dim. in Millimeters
Proximity Switch Size Material

## JACK SCREW/LEVELING SCREW



| Part Number | A | B | C | D | Cad File No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $J S-3410-757$ | $3 / 4-10$ | .53 | 7.57 | 7.00 | $J S 34$ |
| $J S-0108-775$ | $1-8$ | .71 | 7.75 | 7.00 | $J S 01$ |
| $J S-11412-794$ | $11 / 4-12$ | .88 | 7.94 | 7.00 | $J S 114$ |
| $J S-11212-812$ | $11 / 2-12$ | 1.06 | 8.12 | 6.50 | $J S 112$ |



| Part Number | A | B | $C$ | $D$ | $E$ | $F$ | $G$ | Cad File No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $J S-3410-706-R$ | $3 / 4-10$ | .53 | 7.06 | 6.50 | .58 | .18 | .56 | $J S 34 R$ |
| $J S-0108-725-R$ | $1-8$ | .71 | 7.25 | 6.50 | .82 | .26 | .75 | $J S 01 R$ |
| $J S-11412-744-R$ | $11 / 4-12$ | .88 | 7.44 | 6.50 | 1.12 | .28 | .94 | $J S 114 R$ |
| $J S-11212-762-R$ | $11 / 2-12$ | 1.06 | 7.62 | 6.50 | 1.25 | .38 | 1.12 | $J S 112 R$ |

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


| Part Number | A | B | $C$ | $D$ | Cod File No. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| LS-0108-7-F | $1-8$ | 1.00 | 7.00 | 6.38 | LS01 |
| LS-0112-7-F | $1-12$ | 1.00 | 7.00 | 6.38 | LS0112 |
| LS-11412-775-F | $11 / 4-12$ | 1.25 | 7.75 | 6.82 | LS114 |
| LS-0114-7-F | $1-14$ | 1.00 | 7.00 | 6.38 | LS0114 |
| LS-3410-7-F | $3 / 4-10$ | 1.00 | 7.00 | 6.38 | LS34 |
| LS-3416-7-F | $3 / 4-16$ | 1.00 | 7.00 | 6.38 | LS3416 |
| LS-3410-8-F | $3 / 4-10$ | 1.00 | 8.62 | 8.00 | LS34-8 |



| Part Number | A | B | $C$ | $D$ | $E$ | $F$ | $G$ | Cad File No. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LS-0108-7-R | $1-8$ | 1.00 | 7.00 | 6.38 | .82 | .26 | 1.00 | LS01R |
| $L S-0112-7-R$ | $1-12$ | 1.00 | 7.00 | 6.38 | .82 | .26 | 1.00 | LS0112R |
| $L S-11412-775-R$ | $11 / 4-12$ | 1.25 | 7.75 | 6.82 | 1.12 | .28 | 1.00 | $L S 114 R$ |
| $L S-0114-7-R$ | $1-14$ | 1.00 | 7.00 | 6.38 | .82 | .26 | 1.00 | $L S 0114 R$ |
| $L S-3410-7-R$ | $3 / 4-10$ | 1.00 | 7.00 | 6.38 | .58 | .26 | 1.00 | LS34R |
| $L S-3416-7-R$ | $3 / 4-16$ | 1.00 | 7.00 | 6.38 | .58 | .26 | 1.00 | $L S 3416 R$ |
| $L S-3410-8-R$ | $3 / 4-10$ | 1.00 | 8.62 | 8.00 | .58 | .26 | 1.00 | $L S 34-8 R$ |

## Material: 11L17

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

## Detail Standard Co.

## LEVELING SCREW PADS



| Part Number | A | B | C | Cad File No. |
| :---: | :---: | :---: | :--- | :---: |
| LSP-01-T | 2.50 | 1.50 | $3 / 4-10$ | LSPO1T |
| LSP-02-T | 2.50 | 1.50 | $1-8$ | LSPO2T |
| LSP-03-T | 3.00 | 1.50 | $11 / 4-12$ | LSP03T |
| LSP-04-T | 3.50 | 1.50 | $11 / 2-12$ | LSP04T |


| Port Number | A | B | C | D | Cad File No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LSP-01-H | 2.50 | 1.50 | .88 | .25 | LSPO1H |
| 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 |



| Part Number | A | B | C | D | Cad File No. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| LSP- $01-\mathrm{CH}$ | 5.00 | 1.50 | 1.25 | .75 | LSPO1CH |

Material: Steel
Finish: Black Oxide

## Detail Standard Co.

## HOLD DOWN/LEVELING SCREW ASSEMBLY

Type HL \& MHL


| Metric Part Number | English Part Number | A | $B$ | C | 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 |
|  | 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 | HLEB-5-C | HL.4A5 |
| MHL-76-152 | HL-3-6 | 3.00 | 1.50 | 6.00 | 1.00 | STP-12 | HLB-6-C | HL36 |
|  | HL $-3 A^{-6}$ | 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.

# Detail Standard Co. 

## HOLD DOWN/LEVELING SCREW ASSEMBLY

Type HLF


| Part <br> Number | A | B | C | D | Floor <br> Pad | Leveling <br> Screw | CAD FILE NO. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HLF-3-4 | 3.00 | 1.50 | 4.00 | 1.00 | $\mathrm{STP}-12$ | HLB-4-F | HLF34 |
| HLF-3A-4 | 3.00 | 1.50 | 4.00 | 1.25 | $\mathrm{STP}-13$ | HLB-4-F | HLF3A4 |
| HLF-4-4 | 4.00 | 2.00 | 4.00 | 1.00 | $\mathrm{STP}-14$ | HLB-4-F | HLF44 |
| HLF-4A-4 | 4.00 | 2.00 | 4.00 | 1.25 | $\mathrm{STP}-15$ | HLB-4-F | HLF4A4 |
| HLF-3-5 | 3.00 | 1.50 | 5.00 | 1.00 | $\mathrm{STP}-12$ | 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 Company | E \& E Speciol 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 | ELJ-1123-A |
| 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 <br> MLSA-2015-50 EMLJ-2050-FAM <br> MLSA-2025-50 EMLJ-2050-CAM <br> MLSA-2420-75 EMLJ-2475-FAM <br> MLSA-2430-75 EMLJ-2475-CAM <br> MLSA-3020-100 EMLJ-3010-FAM <br> MLSA-3035-100 EMLJ-3010-CAM <br> MLSA-3020-150 EMLJ-3015-FAM <br> MLSA-3035-150 EMLJ-3015-CAM <br> MLSA-3630-100 EMLJ-3610-FAM <br> MLSA-3640-100 EMLJ-3610-CAM <br> MLSA-3630-150 EMLJ-3615-FAM <br> MLSA-3640-150 EMLJ-3615-CAM <br> MLSA-3930-100 EMLJ-3910-FAM <br> MLSA-3940-100 EMLJ-3910-CAM <br> MLSA-3930-150 EMLJ-3915-FAM <br> MLSA-3940-150 EMLJ-3915-CAM <br>   <br> MLS-2015-50 EMLJ-2050-FA <br> MLS-2025-50 EMLJ-2050-CA <br> MLS-2420-75 EMLJ-2475-FA <br> MLS-2430-75 EMLJ-2475-CA <br> MLS-3020-100 EMLJ-3010-FA <br> MLS-3035-100 EMLJ-3010-CA <br> MLS-3020-150 EMLJ-3015-FA <br> MLS-3035-150 EMLJ-3015-CA <br> MLS-3630-100 EMLJ-3610-FA <br> MLS-3640-100 EMLJ-3610-CA <br> MLS-3630-150 EMLJ-3615-FA <br> MLS-3640-150 EMLJ-3615-CA <br> MLS-3930-100 EMLJ-3910-FA <br> MLS-3940-100 EMLJ-3910-CA <br> MLS-3930-150 EMLJ-3915-FA <br> MLS-3940-150 EMLJ-3915-CA <br>   |

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

# Detail Standard Co. 

## HOLD DOWN/LEVELING SCREW ASSEMBLY

Type LSA


| Part Number | A | B | C | 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 | $11 / 8-12$ | 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 | $11 / 4-7$ | 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 | $11 / 4-7$ | 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 | $11 / 4-12$ | 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 | $11 / 4-12$ | 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 | $11 / 2-6$ | 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 | $11 / 2-12$ | 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 | $11 / 2-12$ | 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
(1) Stud
(1) Flat Washer
(1) Hex. Nut
(1) Jam Nut

Material: Steel
Finish: Black Oxide

# Detail Standard Co. 

## HOLD DOWN/LEVELING SCREW ASSEMBLY

Type LSB


| Part Number | A | B | C | D | $E$ | $F$ | $G$ | Floor Pad | Stud | Leveling Screw | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LSB-1-4 | 3/4-16 | 3/8-16 | 10.50 | 4.00 | 1.00 | . 88 | 2.00 | F-20 | S-1-105 | LS-1-4 | LS814 |
| LSB-2-4 | 1-14 | 1/2-13 | 10.50 | 4.00 | 1.00 | 1.12 | 2.25 | F-22 | S-2-105 | LS-2-4 | LSB24 |
| LSB-2-5 | 1-14 | 1/2-13 | 11.50 | 5.00 | 1.00 | 1.12 | 2.25 | F-22 | S-2-115 | LS-2-5 | LSB25 |
| LSB-3-3 | $11 / 8-12$ | 1/2-13 | 10.00 | 3.00 | 1.25 | 1.25 | 2.50 | F-25 | S $-3-100$ | LS-3-3 | LSB33 |
| LSB-3-5 | $1 / / 8-12$ | 1/2-13 | 12.00 | 5.00 | 1.25 | 1.25 | 2.50 | F-25 | S-3-120 | LS-3-5 | LSB35 |
| LSB-3-6 | $11 / 8-12$ | 1/2-13 | 13.00 | 6.00 | 1.25 | 1.25 | 2.50 | F-25 | S-3-130 | LS-3-6 | LSB36 |
| LSB-4-5 | $11 / 4-7$ | 5/8-11 | 12.00 | 5.00 | 1.25 | 1.38 | 2.50 | F-26 | S-4-120 | LS-4-5 | LSB45 |
| LSB-4-6 | 1 1/4-7 | 5/8-11 | 13.00 | 6.00 | 1.25 | 1.38 | 2.50 | F-26 | S-4-130 | LS-4-6 | LSB46 |
| LSB-5-5 | 1 1/4-12 | 5/8-11 | 12.00 | 5.00 | 1.25 | 1.38 | 2.50 | F-26 | S-4-120 | LS-5-5 | LSB55 |
| LSB-5-6 | 1.1/4-12 | 5/8-11 | 13.00 | 6.00 | 1.25 | 1.38 | 2.50 | F-26 | S-4-130 | LS-5-6 | LSB56 |
| LSB-6-5 | $11 / 2-6$ | 5/8-11 | 12.50 | 5.00 | 1.25 | 1.62 | 2.50 | F-26 | S-4-125 | LS-6-5 | LSB65 |
| LSB-7-5 | $11 / 2-12$ | 5/8-11 | 12.50 | 5.00 | 1.25 | 1.62 | 2.50 | F-26 | S-4-125 | LS-7-5 | LS875 |
| LSB-7-6 | $11 / 2-12$ | 5/8-11 | 13.50 | 6.00 | 1.25 | 1.62 | 2.50 | $F-26$ | S-4-135 | LS-7-6 | LSB76 |
| LSB-8-3 | $11 / 8-12$ | 1/2-13 | 10.00 | 3.00 | 1.25 | 1.12 | 2.50 | $F-25$ | S-3-100 | LS-8-3 | LSB83 |
| LSB-8-5 | $11 / 8-12$ | 1/2-13 | 12.00 | 5.00 | 1.25 | 1.12 | 2.50 | $F-25$ | S-3-120 | LS-8-5 | LSB85 |

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

## Detail Standard Co.



| Port No. | Leg Member Size | A | B | C | D | $E$ | $F$ | Boot | Floor Pod | Leveling Screw | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FA-2-2 | $2 \times 2$ | 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 | $21 / 2 \times 21 / 2$ | 4.00 | 2.00 | 6.00 | 3.75 | 2.53 | 1.25 | $\mathrm{B}-2.5-2.5$ | FP-1 | LS-3410-8-F | FA2525 |
| FA-3-2 | $3 \times 2$ | 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 | $3 \times 3$ | 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 | $4 \times 2$ | 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 | $4 \times 3$ | 6.00 | 3.00 | 6.50 | 4.00 | 4.03 | 1.50 | B-4-3 | $F P-1$ | LS-3410-8-F | FA43 |
| FA-4-4 | $4 \times 4$ | 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 | $6 \times 3$ | 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 | $6 \times 4$ | 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 | $6 \times 6$ | 7.50 | 3.75 | 8.00 | 5.50 | 6.03 | 3.00 | B-6-6 | $F P-1$ | LS-3410-8-F | FA66 |

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

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

# Detail Standard Co. 

FOOT ASSEMBLY
Type FB


| Part <br> No. | Leg Member <br> Size | A | B | C | D | E | F | G | Boot | Floor <br> Pad | CAD FILE NO. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{FB}-2-2$ | $2 \times 2$ | 6.00 | 3.00 | 5.00 | 2.75 | 2.03 | 1.00 | 2.00 | $\mathrm{C}-2-2$ | $\mathrm{E}-6-5$ | FB 22 |
| $\mathrm{FB}-2.5-2.5$ | $21 / 2 \times 21 / 2$ | 6.00 | 3.00 | 5.50 | 3.00 | 2.53 | 1.25 | 2.00 | $\mathrm{C}-2.5-2.5$ | $\mathrm{E}-6-5.5$ | FB 2525 |
| $\mathrm{FB}-3-2$ | $3 \times 2$ | 6.00 | 3.00 | 5.00 | 2.75 | 3.03 | 1.00 | 2.00 | $\mathrm{C}-3-2$ | $\mathrm{E}-6-5$ | FB 32 |
| $\mathrm{FB}-3-3$ | $3 \times 3$ | 6.00 | 3.00 | 6.00 | 3.25 | 3.03 | 1.50 | 2.00 | $\mathrm{C}-3-3$ | $\mathrm{E}-6-6$ | FB 33 |
| $\mathrm{FB}-4-2$ | $4 \times 2$ | 6.00 | 3.00 | 5.00 | 2.75 | 4.03 | 1.00 | 2.00 | $\mathrm{C}-4-2$ | $\mathrm{E}-6-5$ | FB 42 |
| $\mathrm{FB}-4-3$ | $4 \times 3$ | 6.00 | 3.00 | 6.00 | 3.25 | 4.03 | 1.50 | 2.00 | $\mathrm{C}-4-3$ | $\mathrm{E}-6-6$ | FB 43 |
| $\mathrm{FB}-4-4$ | $4 \times 4$ | 6.00 | 3.00 | 6.00 | 3.75 | 4.03 | 2.00 | 2.00 | $\mathrm{C}-4-4$ | $\mathrm{E}-6-6$ | FB 44 |
| $\mathrm{FB}-6-3$ | $6 \times 3$ | 8.00 | 4.00 | 6.00 | 3.25 | 6.03 | 1.50 | 3.00 | $\mathrm{C}-6-3$ | $\mathrm{E}-8-6$ | FB 63 |
| $\mathrm{FB}-6-4$ | $6 \times 4$ | 8.00 | 4.00 | 6.00 | 3.75 | 6.03 | 2.00 | 3.00 | $\mathrm{C}-6-4$ | $\mathrm{E}-8-6$ | FB 64 |
| $\mathrm{FB}-6-6$ | $6 \times 6$ | 8.00 | 4.00 | 7.00 | 4.75 | 6.03 | 3.00 | 3.00 | $\mathrm{C}-6-6$ | $\mathrm{E}-8-7$ | $\mathrm{FB66}$ |

Each Foot Assy. Includes:
(1) Boot - Welded Construction
(1) Floor Pad - Steel
(2) Leveling Screws $-3 / 4-10 \times 3^{\prime \prime}$ Lg. Hex Hd. Bolt w/Locknut
(2) Shipping Bolts $-1 / 2^{\prime \prime}$ Hex. Hd. Bolt w/Locknut

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

# Detail Standard Co. 

## LIMIT SWITCH PLATE



| PART NO. | A | B | C | 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
Model Number Development Detail Standard Switch Plate

Switch Plate $\square$
"A" Dim.

"B" Dim. $\qquad$
"C" Dim. $\qquad$
"E" Dim.
NOTE: Sizes in chart above are standard. Other sizes may be ordered as "special" items, using "Model Number Development" format.

## Detail Standard company

Serving Industry with Quality Components:<br>- Machines<br>- Robotics<br>- Jigs \& Fixtures<br>- Automation Equipment<br>- Welding Systems<br>- Product Components<br>- Conveyors<br>- Hand Tools<br>- Industrial Washers<br>- Assembly Systems<br>- Gages

