DME®

DME

DIE CAST DIE COMPONENTS





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Terms and Conditions of Sale

DME COMPANY LLC ("SELLER")
TERMS AND CONDITIONS OF SALE

1. ACCEPTANCE OF TERMS: Seller's offer is expressly conditioned upon Buyer's acceptance of these Terms and Conditions, and Seller expressly objects to any additional or different terms proposed by Buyer. Any subsequent purchase order issued by Buyer shall constitute Buyer's agreement to these Terms and Conditions. Any contrary terms and conditions contained in any purchase order, facility entry form, or other instrument issued by the Buyer are expressly rejected and shall not apply to this transaction. Unless otherwise specified in the quotation, Seller's quotation shall expire 30 days from its date and may be modified or withdrawn by Seller before receipt of Buyer's conforming purchase order.

2. PAYMENT TERMS: Payment is due in accordance with any applicable progress, advance or other agreed upon payment schedule, or, if no such schedule has been agreed to, no later than 30 days from the date of invoice. Buyer shall pay a late payment charge computed at the lower of 1.5% per month on any overdue balance, or the maximum rate permitted by law. No cash discount is provided. If at any time Seller reasonably determines that Buyer's financial condition or payment history does not justify continuation of Seller's performance, Seller shall be entitled to require full or partial payment in advance or otherwise restructure payments, request additional forms of payment security, suspend its performance or terminate the order.

3. DELIVERY

3.1 In the United States, products are sold FCA Incoterms 2020 point of origin; for export sales, terms are FCA Incoterms port of export. Unless otherwise agreed in writing, title and risk of loss shall pass at the time of shipment. Buyer is responsible for all taxes, duties, fees, or other governmental charges related to its purchase of goods, with the sole exception of taxes on Seller's income. Unless otherwise agreed, Buyer shall pay all packing and delivery costs.

3.2. Seller's quoted lead times and targeted delivery dates are good faith estimates and are not binding on Seller. Buyer's acceptance of delivery of Seller's products from the carrier shall constitute a waiver of any claim for delay. If Seller notifies Buyer that the products are ready for shipment and Buyer delays delivery, then Seller may charge Buyer a storage fee equal to 1.5% of the contract price per month for each month of delay. Such storage fees are in addition to any other remedies Seller may have.

3.3. Buyer shall have a reasonable opportunity to inspect any products prior to shipment. Products shall be deemed to be accepted upon the earlier of: (i) inspection at Seller's plant (provided that no reasonable objection is then raised by Buyer), or (ii) if no inspection is requested, then at shipment. If an objection is made during inspection, then Products shall be deemed accepted upon resolution of the objection by Seller.

4. WARRANTY:

4.1. Seller's express product warranty be as stated in DME's order specification documentation and shall run from the date of shipment (the "Warranty Period"). During the Warranty Period, Seller warrants that the products and services sold hereunder will be free from material defects in material, workmanship and title (the "Warranty").

4.2. If, during the Warranty Period, Seller reasonably determines that the products do not meet the Warranty, then Seller shall, at its option, repair or replace the defective product or component thereof, reperform any defective services at Seller's expense, or refund or credit to Buyer its purchase price for the defective products or services.

4.3. The Warranty will be void and will not apply: (i) when Buyer fails to promptly notify Seller of any alleged defect, (ii) when Buyer fails to properly install, maintain, or operate the products, (iii) to any product or parts thereof with a useful life, under normal operating conditions, inherently shorter than 1 month, or (iv) to products which were not made by Seller or any of Seller's affiliates, provided that in such cases Seller shall use reasonable efforts to pass on to Buyer the manufacturer's warranty.

4.4. If Seller provides any parts or services to repair a product that is not under Warranty, then such parts and services will be billed to Buyer at Seller's prevailing rates for time and materials.

4.5. The Warranty set out above is the sole and exclusive warranty provided by Seller for its products and is in lieu of, and Seller expressly disclaims, all other warranties, express or implied, oral, written or statutory. THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE FOR SELLER'S PRODUCTS.

5. LIMITATION OF LIABILITIES:

5.1. Seller's total liability to Buyer arising out of or resulting from this Contract or related in any way to Seller's products or parts thereof shall not exceed the contract price for such products.

5.2. Seller shall not be liable for loss of profit or revenues, loss of use of products, interruption of business, downtime costs, increased operating costs, or any special, consequential, incidental indirect or punitive damages, whether incurred by Buyer or Buyer's customers.

5.3. Because the conditions of actual production in each end user's plant vary considerably, Buyer assumes all risk for the results obtained by use of Seller's products in the practice of any process, whether in terms of operating costs, general effectiveness, success or failure, and regardless of any oral or written statements made by Seller related to the use of its products.

6. SECURITY INTEREST. Buyer agrees that the Seller shall have and retain a purchase money security interest in the Products securing the payment of all sums becoming due hereunder. Such security interest shall attach, upon completion of manufacture, to the Products and to any parts or accessories attached to the Products and to the proceeds of any sale thereof. Buyer represents that the Products are being acquired for use in its business and that such Products will not, without prior written consent of the Seller, be sold or removed from the Buyer's place of business to which delivery is made. Buyer agrees upon Seller's request to execute any financing statements or other documents required to perfect, continue or renew Seller's security interest in the Products.

7. CANCELLATION: Unless otherwise agreed, Buyer may cancel all or any part of the order by written notice received by Seller before the completion of the order. On receipt of such cancellation notice, all work on the order or part thereof canceled will be stopped as promptly as is reasonably possible. Buyer will then be invoiced for and will pay to Seller as liquidated damages a cancellation charge. For completed items, the charge will be equal to their established prices. For items not completed, the charge will be equal to 135% of Seller's full cost as determined by Seller in accordance with Seller's standard accounting practices (which includes burden and overhead), plus a charge for any packing and storage, less a credit for the balance of the material as scrap.

8. RETURNS: All returned items require a Return Merchandise Authorization (RMA) number from DME. Returns are subject to a quality inspection to validate whether it can be returned to inventory. Mold bases, plates, special components, made-to-order products and other date-sensitive products are non-returnable items. Items returned to DME without prior authorization(RMA)may be returned to sender. Items returned for stated defect or non-conforming reason require detailed explanation. No products are returnable beyond 30 days after receipt.

9. CONFIDENTIALITY. Any nonpublic information, including without limitation, Seller's pricing information and the contents of Seller's quotation or proposal and Buyer's purchase order, exchanged between the parties is deemed confidential ("Confidential Information"). Each party agrees to maintain the other party's Confidential Information in confidence, to not disclose the same to any third parties, and to use it only in connection with this sale. These restrictions shall expire two (2) years after the date of disclosure. This provision does not modify or supersede any separate confidentiality or nondisclosure contract signed by the parties.

10. FORCE MAJEURE: Seller shall not be liable for any delay in performance or nonperformance which is due to war, fire, flood, pandemic, acts of God, acts of third parties, acts of governmental authority or any agency or commission thereof, accident, breakdown of products, differences with employees or similar or dissimilar causes beyond Seller's reasonable control, including but not limited to, those interfering with production, supply or transportation of products, raw materials or components or Seller's ability to obtain, on terms Seller deem reasonable, material, labor, products or transportation.

11. MERGER CLAUSE: This Contract entirely supersedes any prior oral or written representations, correspondence, proposals, or contracts between the parties regarding the products. This writing constitutes the final and total expression of such contract between the parties, and it is a complete and exclusive statement of the terms of that contract.

12. ASSIGNMENT: Neither party may assign this Contract without the written consent of the other party, except that Seller may assign this Contract to a third party that acquires substantially all of Seller's assets and Seller may assign the flow of funds arising out of this Contract.

13. COMPLIANCE WITH LAWS. Each party agrees to comply with all applicable laws in the performance of its obligations; Buyer shall not trans-ship, re-export, divert or redirect Products outside of the original country of delivery without Seller's prior written consent.

14. GOVERNING LAW: This Contract shall be governed by and construed in accordance with the laws of the State of Michigan, without regard to the Convention for the International Sale of Goods (CISG), which shall not apply.

Sales and Ordering Information

U.S.A.

TERMS AND CONDITIONS OF SALE: See previous page.

PHONE ORDERS – TOLL FREE: 800-626-6653. DME's Customer Service Dept. operates Monday through Friday from 7 a.m. to 7 p.m. E.S.T. Calls can be made from anywhere in the continental U.S. and Puerto Rico (Puerto Rico: use "137" prefix instead of "1"). Our Customer Service Representatives will be happy to answer your questions on DME products or services, provide on-the-spot feedback on product availability and shipping details, or take any messages you wish relayed to your local DME sales, manufacturing or technical service representatives.

MAIL ORDERS: If you prefer to order by mail, please address your order to:

- DME Company, 29111 Stephenson Highway, Madison Heights, Michigan 48071-2330
  ATTN: Customer Service Dept.

Email: DME@DME.net

eSTORE: store.DME.net

CHECKS OR MONEY ORDERS: When paying invoices by check or money order, please make payable to DME Company. Include remittance copy of invoice and mail to:

- DME Company, PO Box 854867, Minneapolis, MN 55485-4867

WALK-IN ORDERS, PICK-UPS AND RETURNS: If desired, ordered products in stock at your nearest DME Service Center can be picked up rather than shipped. Walk-in orders at Service Center locations can also be processed while you wait. Products being returned for repair or exchange should be processed through Customer Service prior to being returned.

SPECIAL MACHINING SERVICES: Prints for quotation on special machining work can be sent by EDI to dme_cad@dme.net.

CANADA

TERMS AND CONDITIONS OF SALE: See previous page.

ORDERS, QUOTES, PICKUPS, RETURNS: Please contact 800-387-6600 or email DME_Canada@DME.net.

CHECK OR MONEY ORDERS: Make payable to DME Company. Include remittance copy of invoice and mail to: 5345 Outer Drive, Unit 3, Oldcastle, ON N9G 0C4

For Die Makers and Die Casters

Three Ways to Increase Your Productivity

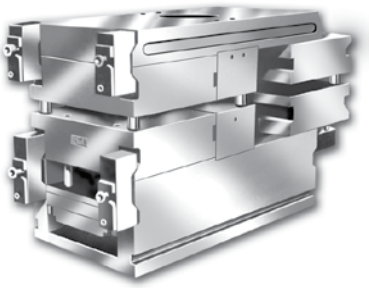




DIE BLOCKS,
PLATES AND COMPONENTS

1. USE AN A OR B-SERIES MOLD BASES. With the appropriate sprue spreader and bushing installed, or a shot-sleeve hole bored to your specifications, A or B-Series Bases are readily adapted for zinc and aluminum die casting. See page 7.

2. USE STANDARD DIE BLOCKS, PLATES AND OTHER COMPONENTS. With our wide range of plates, die blocks, retainer sets, ejector pins and other die components you can design a complete die buildup to suit your specific needs and still retain the full benefits of DME quality, standardization and service. See page 8.



STANDARD
UNIT DIES

3. USE STANDARD UNIT DIES. For both long and short runs, for zinc or aluminum we offer both single and double unit dies in a variety of sizes. Replacement units are available in DME No. 2, No. 3 and No. 5 Steel. See pages 10-19.



SPRUE SPREADERS
AND BUSHINGS

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DIE CLAMPS



AHP MERKLE®
CYLINDERS



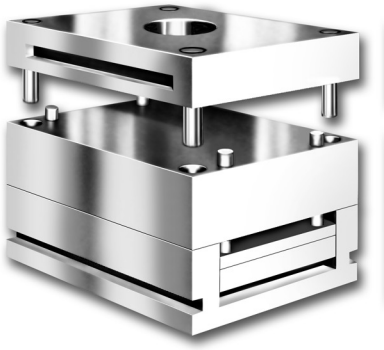
SLIDE SPRAYS

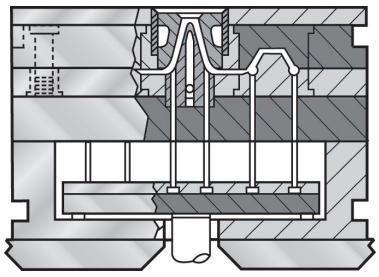
Information available on Standard Unit Die Holders and Replacement Units

To assist designers in saving time on laying out cavities and cores within DME Standard Unit Dies, CAD Data can be downloaded from www.dme.net. The general dimensions of our complete line of Standard Unit Dies for zinc and aluminum are shown on page 19.

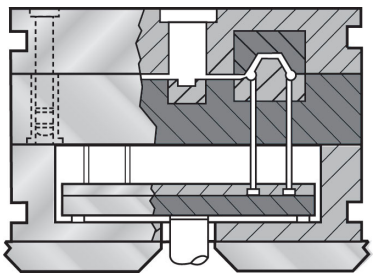
Die Cast Die Assemblies







STANDARD "A" SERIES MOLD BASE WITH STANDARD WATER-COOLED SPRUE SPREADER AND BUSHING INSTALLED FOR ZINC DIE CASTING.



STANDARD "B" SERIES MOLD BASE WITH A SHOT-SLEEVE HOLE FOR ALUMINUM DIE CASTING.

For Zinc and Aluminum Die Casting

The economy of using standard mold assemblies for zinc and aluminum die casting has been well established over the years. Standard "A" and "B" Series Mold Bases are both widely used.

For zinc die casting, a Standard Water-cooled Sprue Spreader and Bushing are installed in place of the sprue bushing and sprue puller pin used in plastics molds. For aluminum, a shot-sleeve hole is bored to customer specifications.

ALUMINUM DIE CAST DIES

When ordering, please specify:

1. Item Number of "A" or "B" Series Mold Base.
2. No. 2 or No. 3 Steel (No. 5 Steel available on special order).

Provide a dimensioned drawing with diameter and location of shot-sleeve hole. Prices will be quoted per your drawing.

ZINC DIE CAST DIES

When ordering, please specify:

1. Item Number of "A" or "B" Series Mold Base.
2. No. 2 or No. 3 Steel (No. 5 Steel available on special order).
3. Item numbers of Spreader and Bushing required.
4. If Spreader location is off-center, please supply a dimensioned drawing.

See pages 21-28 for Spreaders and Bushings. Installation costs for Spreader and Bushing will be quoted per your drawing or specifications.

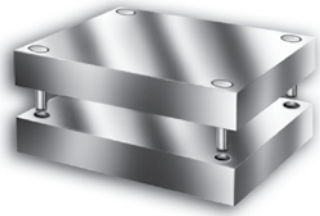
FOR ZINC OR ALUMINUM DIES

Prices can also be quoted per your drawing for the following
additional work:

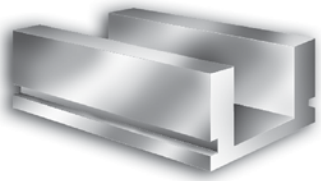
- cavity and core insert pockets
- core slide pockets
- shot plugs (furnish and install)
- runners and kicker pads
- knock-out holes
- ejector pin installation
- pipe clearance holes
- water lines and eye bolt holes
- special clamp slots

Die Cast Die Components

In addition to the use of A and B-Series Mold Bases for die casting as outlined on the previous page, die cast die assemblies can be constructed using DME Standard Components. The drawing below illustrates a "two-plate" die cast die designed entirely with standard components. Complete specifications and prices for the components can be found on the pages listed below.



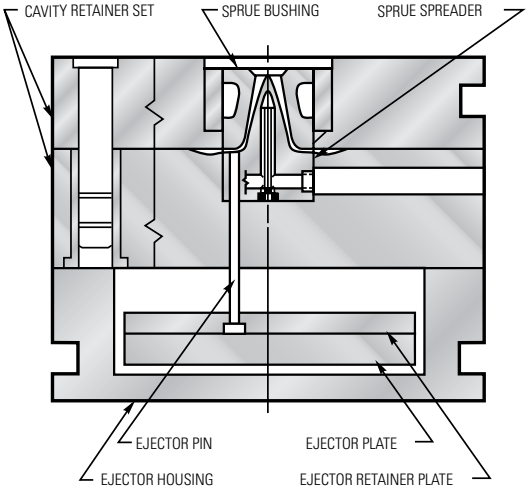
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MISCELLANEOUS PLATES



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SLIDE Sprays ..... Click for More Information

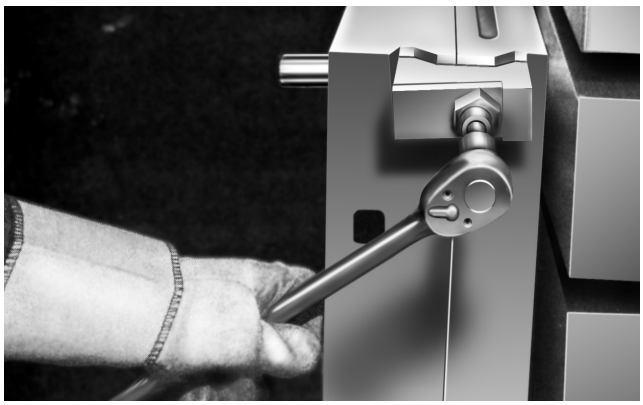


SPREADERS AND BUSHINGS
PAGES 20-28



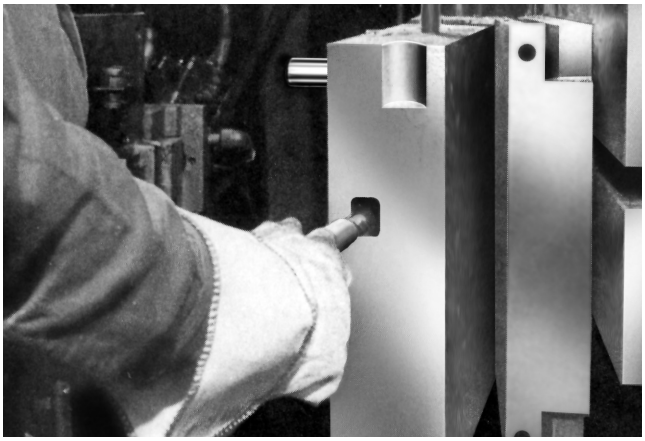


Standard Unit Dies



For Zinc and Aluminum Die Casting

How long does it take to remove a die from a press and replace it (die changeover)? “For small dies,” die casters say, “it can take one and a half to two hours. For large dies…two days, three days, sometimes four days.” Downtime like this is unacceptable for die casters. That's why so many of them are now investing in Standard Unit Die Holders for both long and short run zinc and aluminum die casting.



20-MINUTE DIE CHANGEOVERS

Standard Unit Die Holders and Replacement Units are “made for each other.” They’re designed and ground to such close tolerances that die casters can remove Replacement Units from the Holders and put new ones in within 20 minutes or less. This cuts downtime and enables
a die caster to increase productivity and profitability on both long- and short-run jobs.

FOUR TYPES OF HOLDERS

You can get four types of Standard Unit Die Holders: Single Unit; Double Unit; Single Heavy-Duty Unit; Double Heavy-Duty Unit. They are precision engineered and constructed of high quality die steels to withstand the increasingly higher pressures and injection speeds

STANDARD REPLACEMENT UNITS

Standard and Standard Heavy-Duty Replacement Units are precision made and completely interchangeable when used with their matching Standard and Standard Heavy-Duty Unit Die Holders. Replacement Units are available in D-M-E No. 2, No. 3, or No. 5 Steel. The more popular sizes are carried in stock for immediate delivery.

NO. 2 STEEL

An AISI 4130 type steel. It is pre-heat treated to approximately 302 Bhn (32 HRC) to withstand the peening effects of flash. Its high-strength steel is ideal for applications where cavity inserts will be used

NO. 3 STEEL

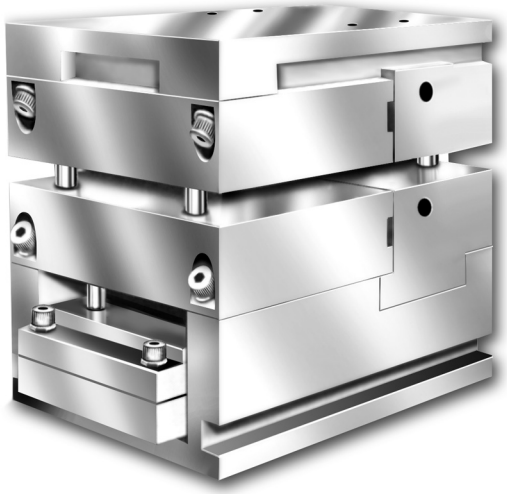
An exceptionally clean P-20 AISI 4130 (modified) type cavity steel, pre-heat treated to 277-321 Bhn (28-35 HRC). It provides high hardness, good machinability, and exceptional polishability. It also provides excellent tool life, especially for zinc die cast dies.

NO. 5 STEEL

A thermal-shock resistant, hotwork die steel (H-13 type). Supplied fully annealed, approx. 200 Bhn (93 HRB), for easy machinability, it can be subsequently
heat treated to the desired hardness with a minimum of deformation. Ideal for aluminum and most long run die casting applications. DME No. 5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest

REPLACEMENT UNITS IN ANY STEEL OR HARDNESS REQUIRED ARE AVAILABLE ON SPECIAL ORDER

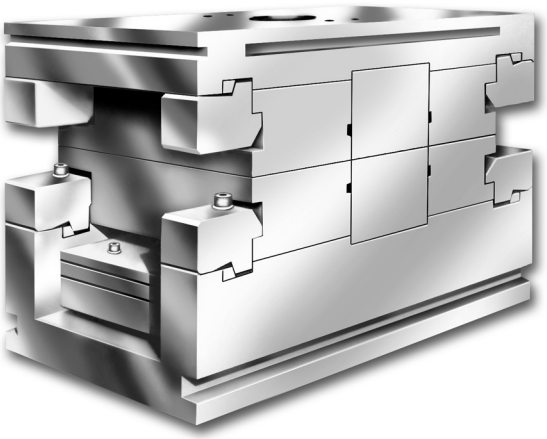
Standard Unit Dies



STANDARD SINGLE UNIT DIE HOLDER
WITH REPLACEMENT UNIT



STANDARD DOUBLE UNIT DIE HOLDER
WITH REPLACEMENT UNITS



STANDARD HEAVY-DUTY DOUBLE UNIT DIE HOLDER
WITH REPLACEMENT UNITS

For Zinc and Aluminum Die Casting

Pre-Engineered Design Features

- **Maximum Cavity Area for Greater Range of Jobs**

  Three sides of Replacement Units are open for placement of core slides or water lines

- **Rigid Center Section for Longer Die Life**
  Center Section is made from DME No. 5 Steel (H-13 type) heat treated to 42-46 Rockwell C. Upper and lower halves are recessed for added rigidity

- **Accurate Alignment for Minimum Wear**
  Six Leader Pins and six Return Pins (four of each in Single Unit Holders) provide better alignment and permit uniform control of Ejector Plate

- Positive Locking of Interchangeable Units
  Precision made center section has solid horizontal and vertical keys for positive locking of Replacement Units. Pry-bar slots facilitate removal of units

- **Wedge Clamps and Solid Steel Wedge Locks "Beef Up" Safety**
  To "beef up" safety and speed die changeovers, Single and Double Unit Die Holders are equipped with wedge clamps with heavy-duty socket screws. Single and Double Heavy-Duty Unit Die Holders have solid steel wedge locks for the same purposes

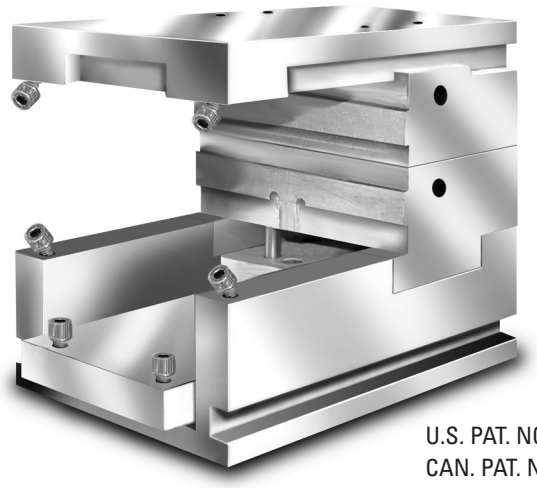
  On the smaller Single and Double Unit Die Holders a specially developed "space-saver" design with heavy-duty socket screws makes equally fast die changeovers possible

- **Designed for Zinc or Aluminum Applications**
  Available with Water-cooled Sprue Spreader and Bushing installed for zinc or with shot-sleeve hole bored to specifications for aluminum die casting

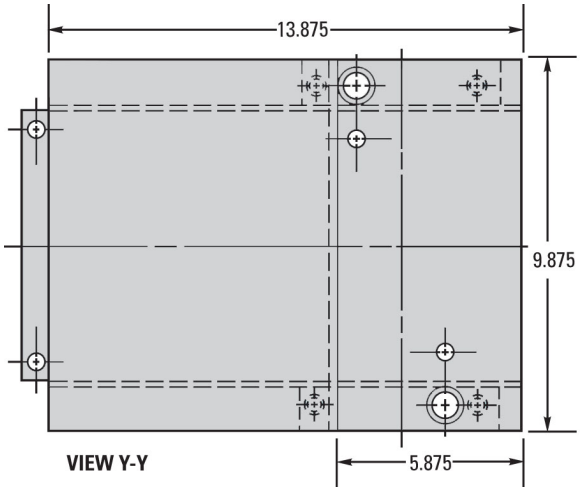
Single Unit Die Holders

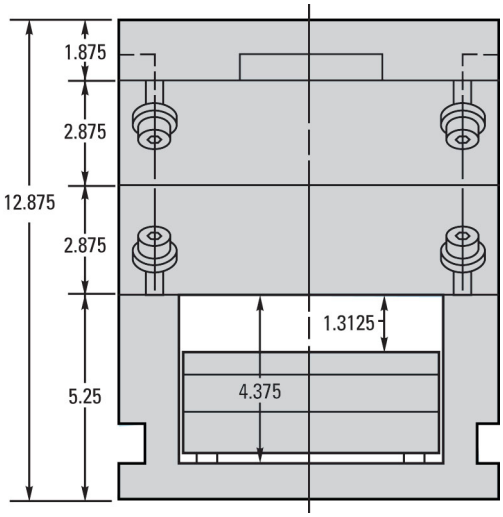
For Zinc and Aluminum Die Casting

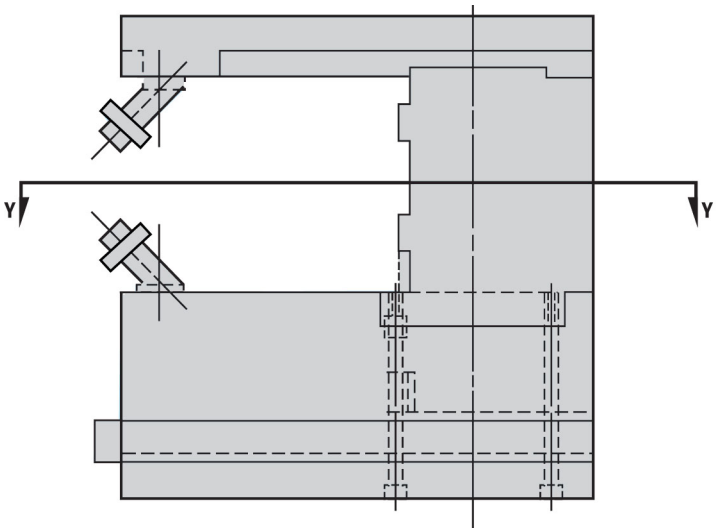
Designed for smaller die casting machines (50-150 ton)



U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895







DCS-108 SINGLE UNIT DIE HOLDERS

CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

TOP CLAMPING PLATE
No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn

EJECTOR HOUSING
High Carbon Steel, pre-heat treated to approx. 300 Bhn

FOR ZINC
Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and installation included in List Prices.

FOR ALUMINUM
Straight shot sleeve hole bored to your specifications included in List Prices. (Please supply a dimensioned

ITEM NUMBERS SHOWN ARE FOR UNIT HOLDERS ONLY AND DO NOT INCLUDE THE REPLACEMENT UNITS, SEE PAGE 17.

ITEM NUMBER	NET WEIGHT	REPLACEMENT UNIT SIZE
DCS-108-A DCS-108-Z	300	8.000 X 9.875

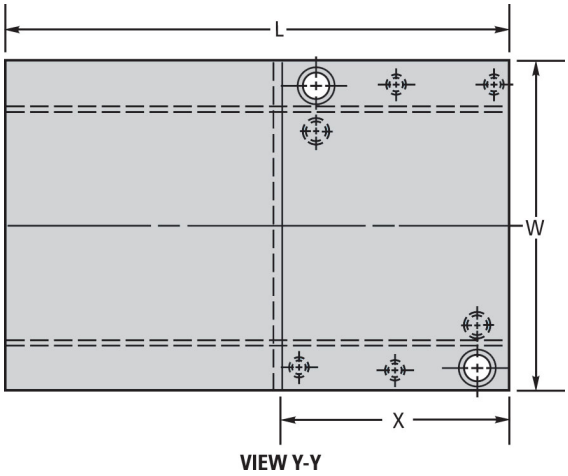
WHEN ORDERING FROM PAGES 11-12, PLEASE SPECIFY:

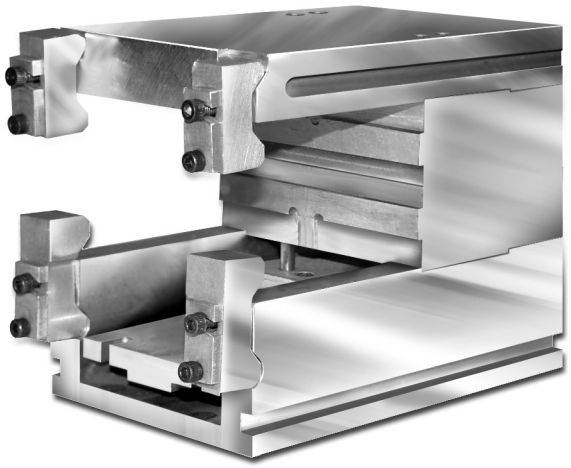
1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment

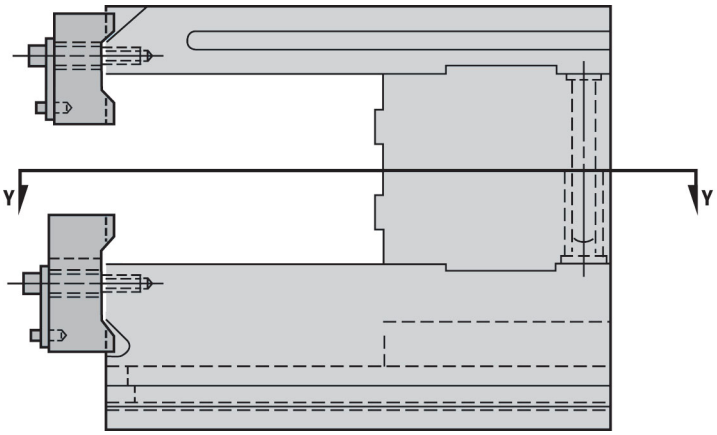
Single Unit Die Holders

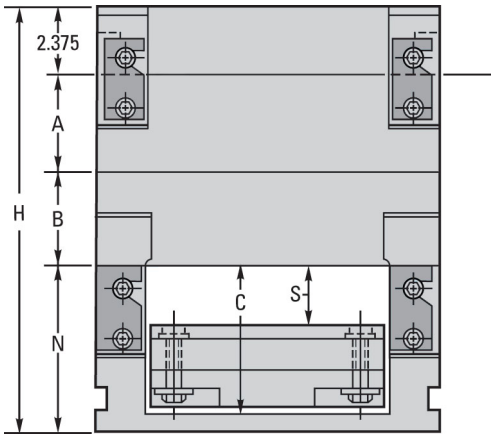
For Zinc and Aluminum Die Casting

U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895









DCS-1012, DCS-1215 and DCS-1518 SINGLE UNIT DIE HOLDERS

CENTER SECTION
No. 5 Steel (H-13 type), pre-heat treated to approx. 200 Bhn (94 HRB)

TOP CLAMPING PLATE
No. 2 Steel (AISI 4130 type), pre-heat treated to 369-321 Bhn (28-34 HRC)

EJECTOR HOUSING
1012 and 1215: High Carbon Steel, pre-heat treated to approx. 300 Bhn (32 HRC)
1518: No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn (28-34 HRC)

FOR ZINC
Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and installation included in List Prices.

FOR ALUMINUM
Straight shot sleeve hole bored to your specifications included in List Prices. (Please supply a dimensioned drawing.)

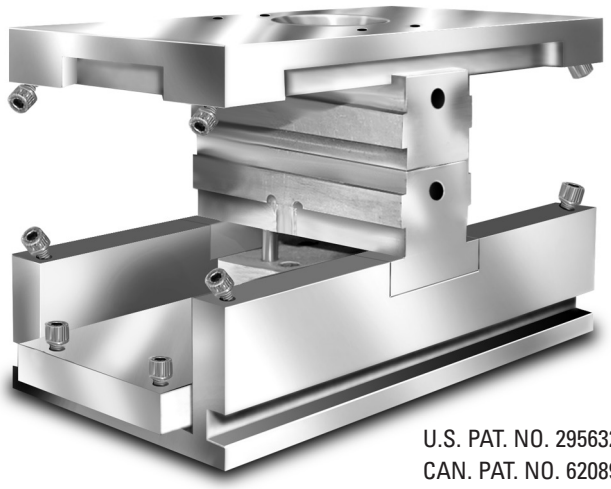
ITEM NUMBER	W	L	H	N	C	S	X	A	B	NET WEIGHT	REPLACEMENT UNIT SIZE
DCS-1012-A DCS-1012-Z	11.875	17.875	15.125	6.000	5.125	2.0625	8.000	3.375	3.375	535	9.875 X 11.875
DCS-1215-A DCS-1215-Z	14.875	21.000	16.250	6.125	5.250	2.0625	9.125	3.875	3.875	835	11.875 X 14.875
DCS-1518-A DCS-1518-Z	17.875	24.000	18.125	7.000	5.625	2.3125	9.125	4.375	4.375	1296	14.875 X 17.875

ITEM NUMBERS SHOWN ARE FOR UNIT HOLDERS ONLY AND DO NOT INCLUDE THE REPLACEMENT UNITS, SEE PAGE 17.
FOR OTHER REPLACEMENT PARTS, SEE PAGE 19.

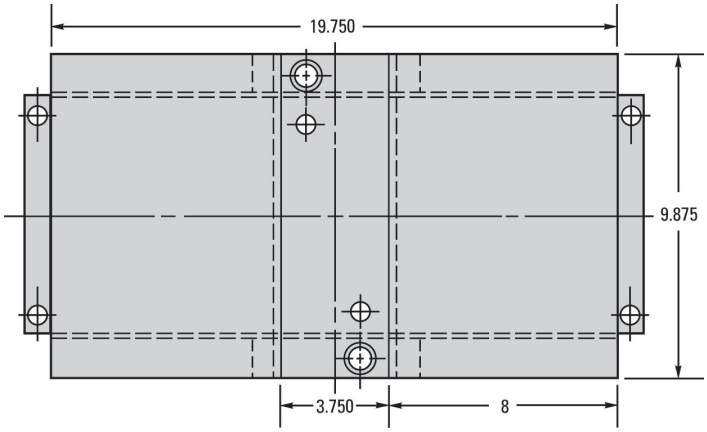
Double Unit Die Holders

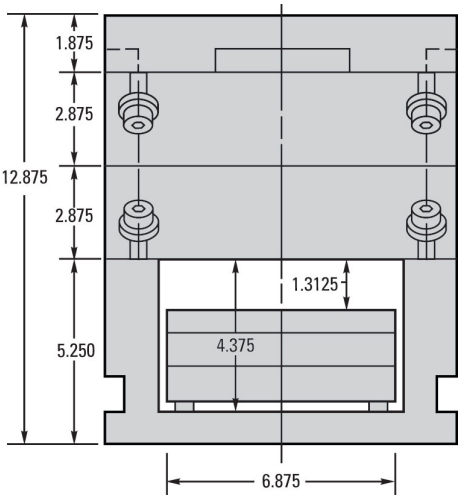
For Zinc and Aluminum Die Casting

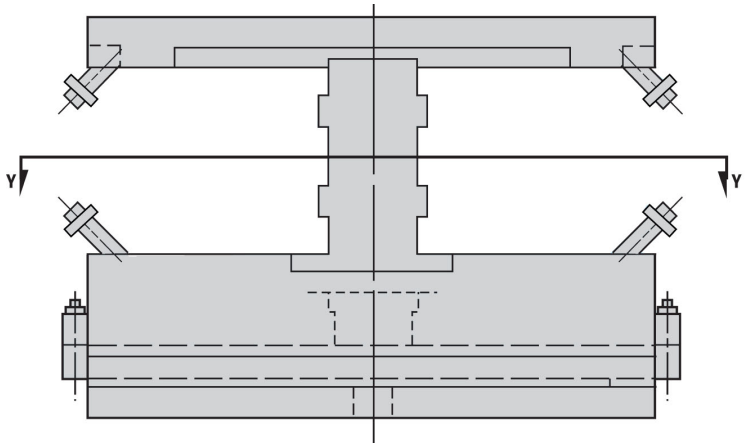
Designed for smaller die casting machines (50-150 ton)



U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895







DC -108 DOUBLE UNIT DIE HOLDERS

CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

TOP CLAMPING PLATE
No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn

EJECTOR HOUSING
High Carbon Steel, pre-heat treated to approx. 300 Bhn

FOR ZINC
Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and installation included in List Prices.

FOR ALUMINUM
Straight shot sleeve hole bored to your specifications included in List Prices. (Please supply a dimensioned

ITEM NUMBERS SHOWN ARE FOR UNIT HOLDERS ONLY AND DO NOT INCLUDE THE REPLACEMENT UNITS, SEE PAGE 17.

ITEM NUMBER	NET WEIGHT	REPLACEMENT UNIT SIZE
DC-108-A DC-108-Z	340	8.000 X 9.875

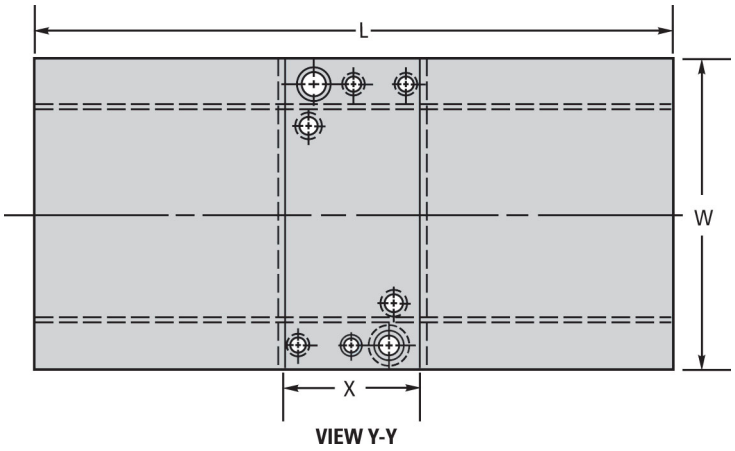
WHEN ORDERING FROM PAGES 13-14, PLEASE SPECIFY:

1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment

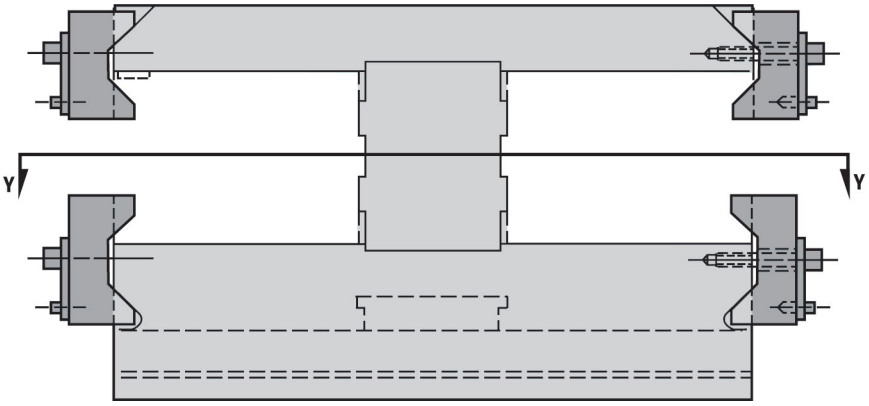
Double Unit Die Holders

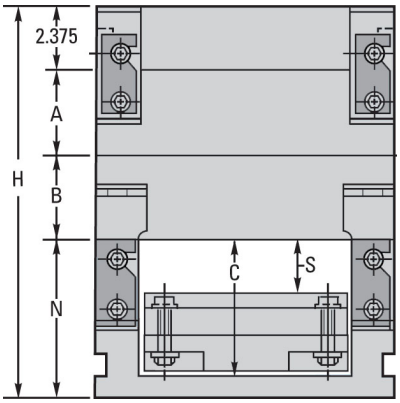
For Zinc and Aluminum Die Casting

U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895









DC-1012, DC-1215 and DC-1518 DOUBLE UNIT DIE HOLDERS

CENTER SECTION

No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

TOP CLAMPING PLATE

No. 2 Steel (AISI 4130 type), pre-heat treated to 269-321 Bhn

EJECTOR HOUSING

1012 & 1215: High Carbon Steel, pre-heat treated to approx. 300 Bhn
1518: No. 2 Steel (AISI 4130 type), pre-heat treated to 269-321 Bhn

FOR ZINC

Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and installation included in List Prices.

FOR ALUMINUM

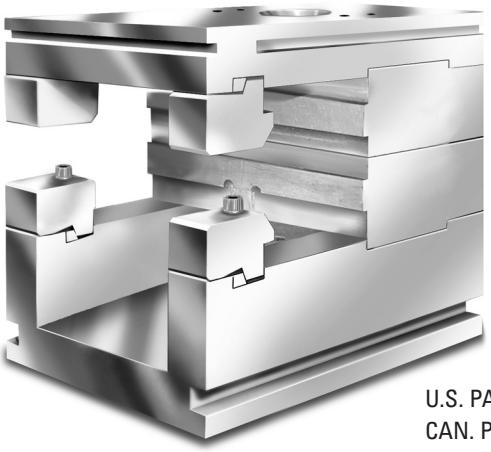
ITEM NUMBER	W	L	H	N	C	S	X	A	B	NET WEIGHT	REPLACEMENT UNIT SIZE
DC-1012-A DC-1012-Z	11.875	25.0625	15.125	6.000	5.125	2.0625	5.3125	3.375	3.375	645	9.875 X 11.875
DC-1215-A DC-1215-Z	14.875	29.750	16.250	6.125	5.250	2.0625	6.000	3.875	3.875	935	11.875 X 14.875
DC-1518-A DC-1518-Z	17.875	35.750	18.125	7.000	5.875	2.3125	6.000	4.375	4.375	1554	14.875 X 17.875

17.

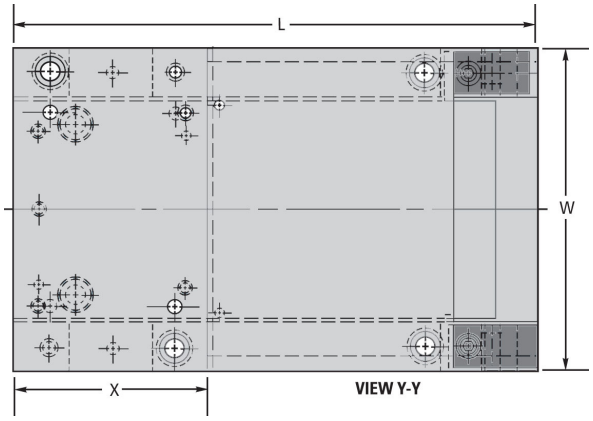
FOR OTHER REPLACEMENT PARTS, SEE PAGE 19.

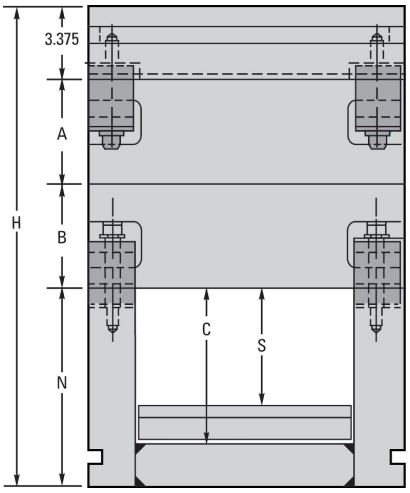
Single Heavy-Duty Unit Die Holders

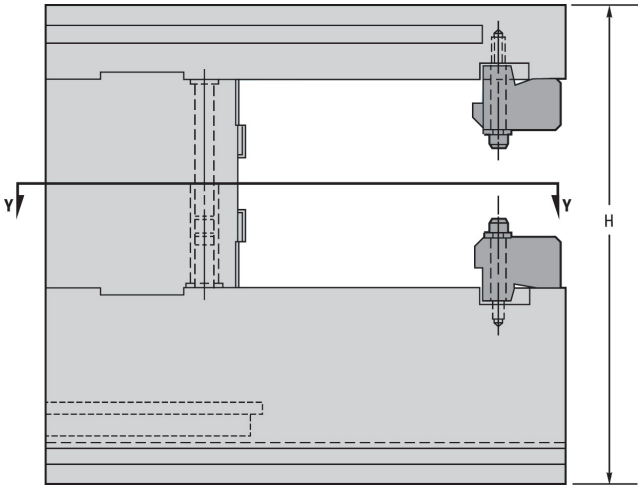
For Zinc and Aluminum Die Casting



U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895







DCS-1215 and DCS-1518 HEAVY-DUTY SINGLE UNIT DIE HOLDERS

CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

TOP CLAMPING PLATE and EJECTOR HOUSING
No. 2 Steel (AISI 4130 type), pre-heat treated to 269-321 Bhn

FOR ZINC
Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and installation included in List Prices.

FOR ALUMINUM

ITEM NUMBER	W	L	H		C	S	X	A	B	NET WEIGHT	REPLACEMENT UNIT SIZE
DCS-1215-A-HD DCS-1215-Z-HD	14.875	25.000	22.250	9.125	7.250	2.5625	9.125	4.875	4.875	1442	11.875 X 14.875
DCS-1518-A-HD DCS-1518-Z-HD	17.875	28.500	24.625	9.500	7.625	2.8125	9.125	5.875	5.875	2399	14.875 X 17.875

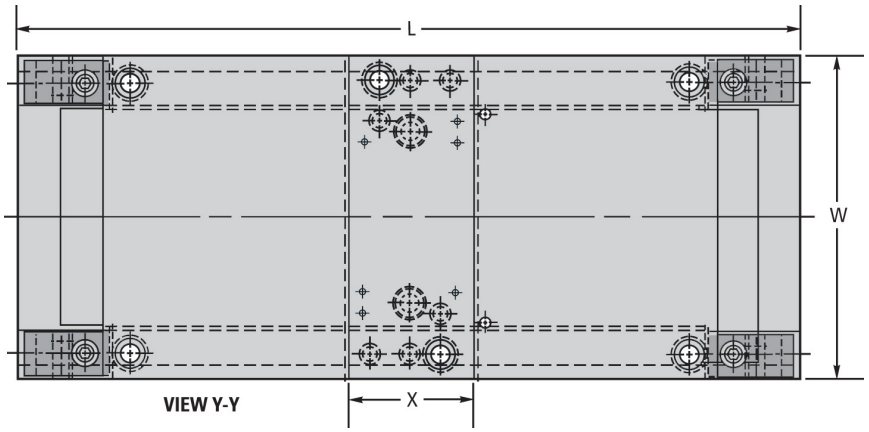
ITEM NUMBERS SHOWN ARE FOR UNIT HOLDERS ONLY AND DO NOT INCLUDE THE REPLACEMENT UNITS, SEE PAGE 18.
FOR OTHER REPLACEMENT PARTS, SEE PAGE 19.

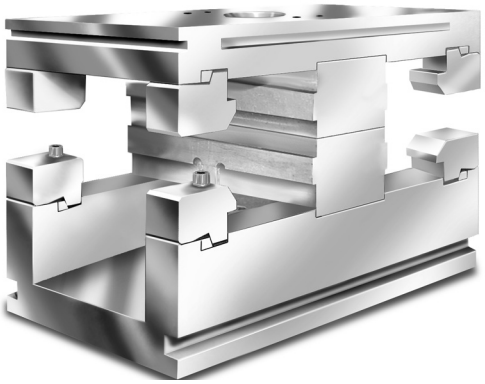
When ordering from pages 15-16, PLEASE SPECIFY:
1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment

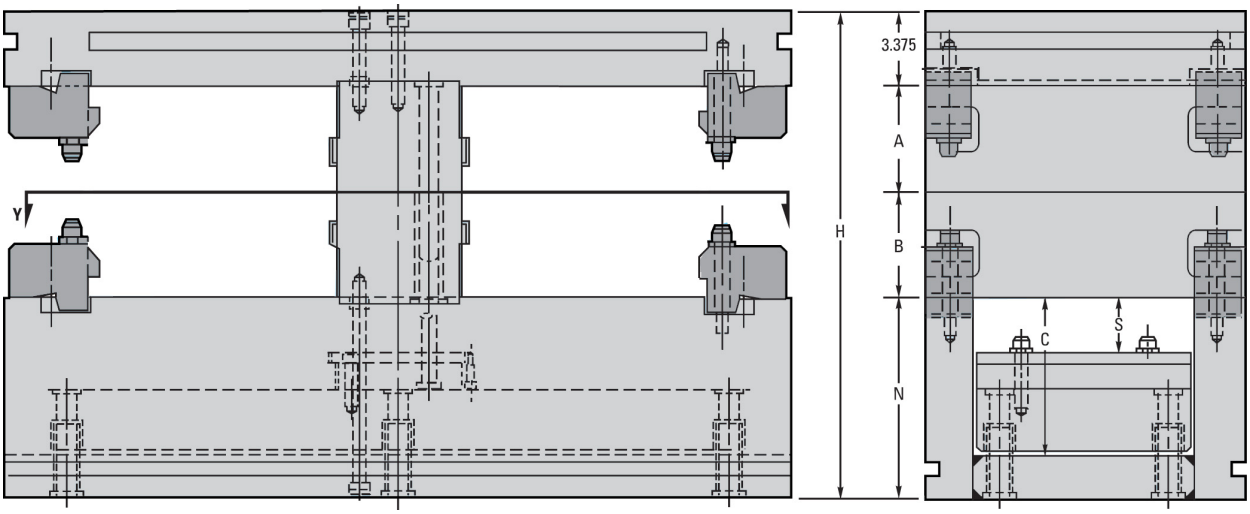
Double Heavy-Duty Unit Die Holders

For Zinc and Aluminum Die Casting

U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895







DC-1215 and DC-1518 HEAVY-DUTY DOUBLE UNIT DIE HOLDERS

CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

TOP CLAMPING PLATE and EJECTOR HOUSING
No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn

FOR ZINC
Spreader and Bushing specified will be installed. Cost of Spreader, Bushing and iinstallation included in List Prices.

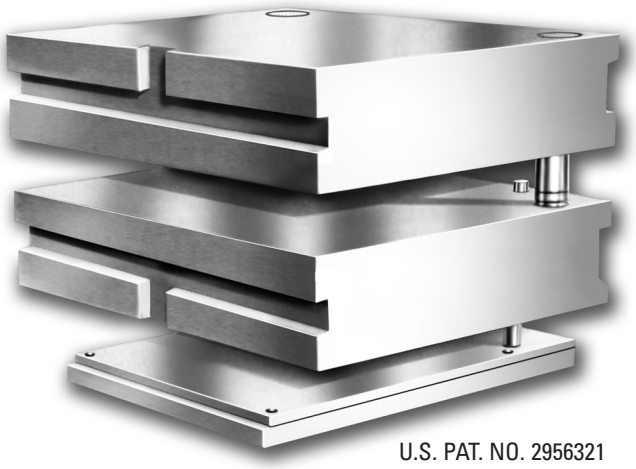
FOR ALUMINUM
Straight shot sleeve hole bored to your specifications included in List Prices. (Please supply a dimensioned drawing.)

ITEM NUMBER	W	L	H	N	C	S	X	A	B	NET WEIGHT	REPLACEMENT UNIT SIZE
DC-1215-A-HD DC-1215-Z-HD	14.875	37.750	22.250	9.125	7.250	2.5625	6.000	4.875	4.875	1794	11.875 X 14.875
DC-1518-A-HD DC-1518-Z-HD	17.875	44.750	24.625	9.500	7.625	2.8125	6.000	5.875	5.875	2635	14.875 X 17.875

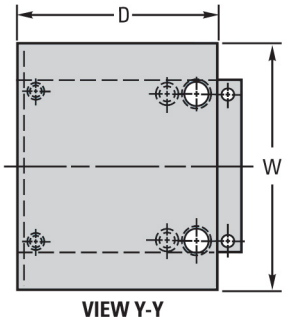
ITEM NUMBERS SHOWN ARE FOR UNIT HOLDERS ONLY AND DO NOT INCLUDE THE REPLACEMENT UNITS, SEE PAGE 18.
FOR OTHER REPLACEMENT PARTS, SEE PAGE 19.

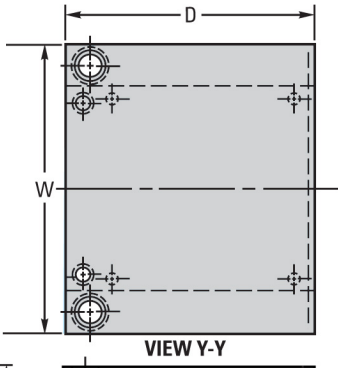
Replacement Units

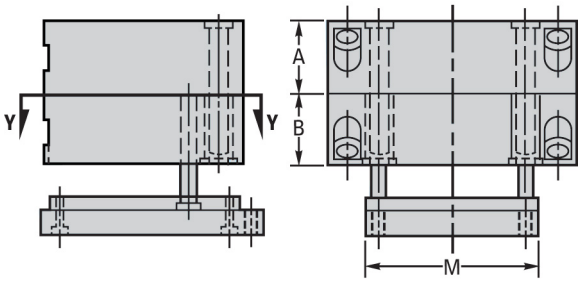
For Zinc and Aluminum Unit Dies



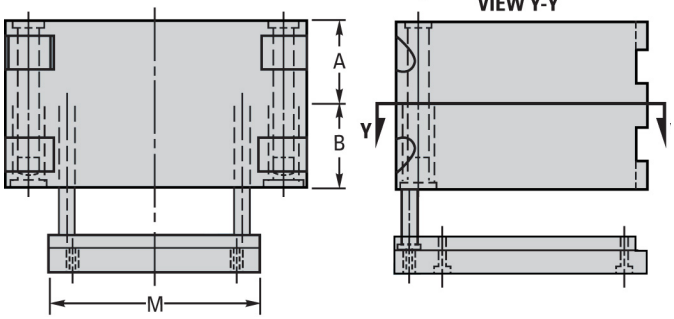
U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895







U-108-D STANDARD REPLACEMENT UNIT



U-1012-D, U-1215-D AND U-1518-D
STANDARD REPLACEMENT UNITS

STANDARD REPLACEMENT UNITS ARE AVAILABLE IN:

No. 2 Steel (AISI 4130 type), pre-heat treated to 269-321 Bhn
No. 3 Steel (P-20 type), pre-heat treated to 277-321 Bhn
No. 5 Steel (H-13 type), annealed – approximately 200 Bhn
Thickness of "A" and "B" Plates are finished .040" oversize (.020" per side) to permit finish grinding after heat treatment.

No. 5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest Number 01-80-01 D.

ITEM NUMBER	D		A	B	M	NET WEIGHT
U-108-D	8.000	9.875	2.875	2.875	6.875	154
U-1012-D	9.875	11.875	3.375	3.375	8.375	264
U-1215-D	11.875	14.875	3.875	3.875	11.000	462
U-1518-D	14.875	17.875	4.375	4.375	13.000	765

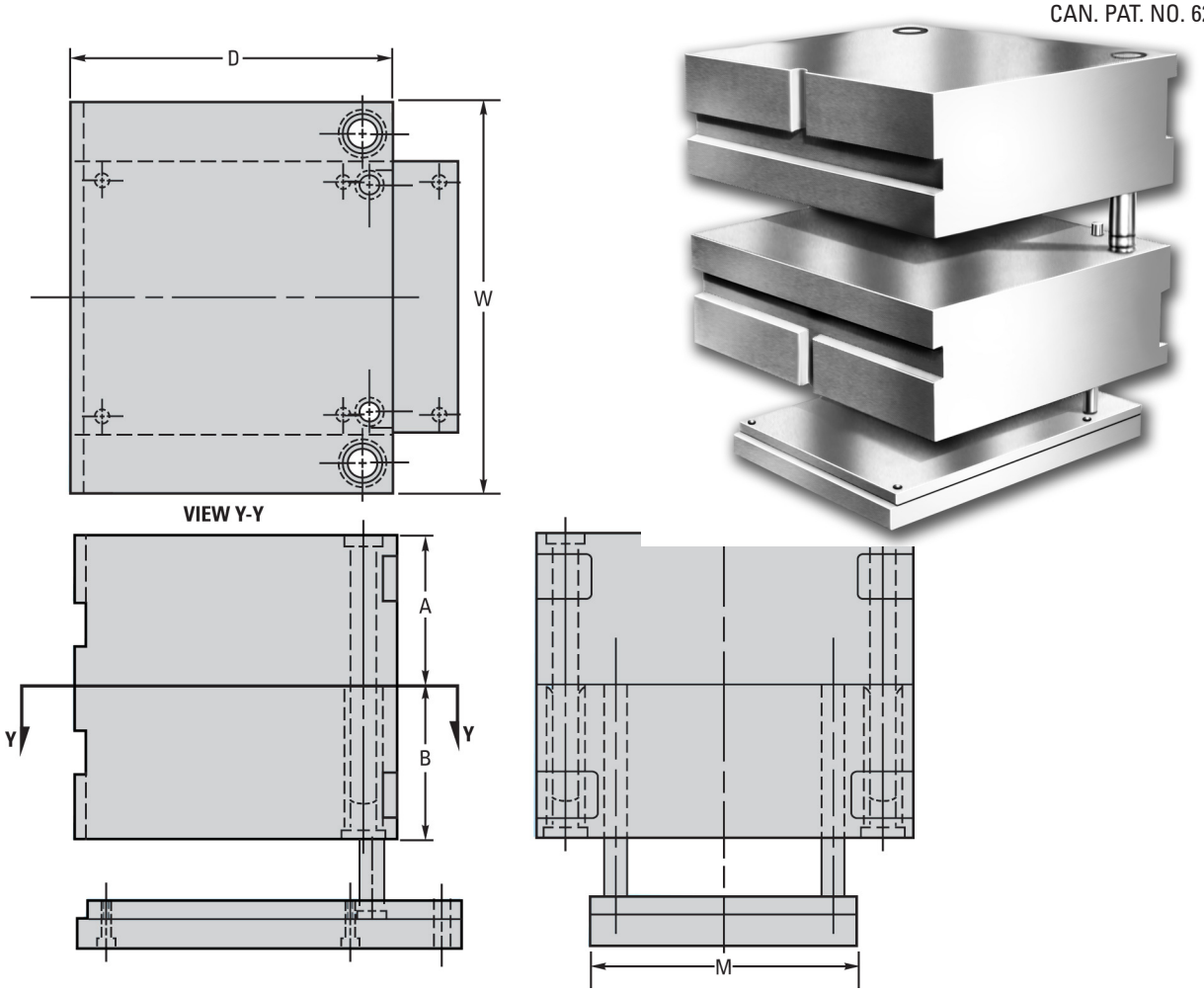
WHEN ORDERING, PLEASE SPECIFY:

1. Quantity and Item Number
2. No. 2, No. 3 or No. 5 Steel
3. Method of Shipment

Heavy-Duty Replacement Units

For Zinc and Aluminum Unit Dies

U.S. PAT. NO. 2956321
CAN. PAT. NO. 620895



STANDARD HEAVY-DUTY REPLACEMENT UNITS ARE AVAILABLE IN:

No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn (28-34 HRC)
No. 3 Steel (P-20 type), pre-heat treated to 271-321 Bhn (28-34 HRC)
No. 5 Steel (H-13 type), annealed – approximately 200 Bhn
Thickness of "A" and "B" Plates are finished 040" oversize (.020" per side) to permit finish grinding after heat treatment.

DME No. 5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest Number 01-80-01 D.

ITEM NUMBER	D	W	A	B	M	NET WEIGHT
UU-1215-HD	11.875	14.875	4.875	4.875	10.250	562
U-1518-HD	14.875	17.875	5.875	5.875	12.000	990

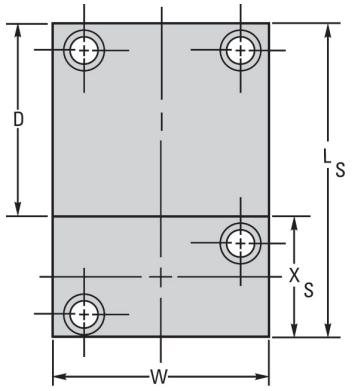
WHEN ORDERING, PLEASE SPECIFY:
1. Quantity and Item Number
2. No. 2, No. 3 or No. 5 Steel
3. Method of Shipment

Master Layouts for Die Cast Die Designers

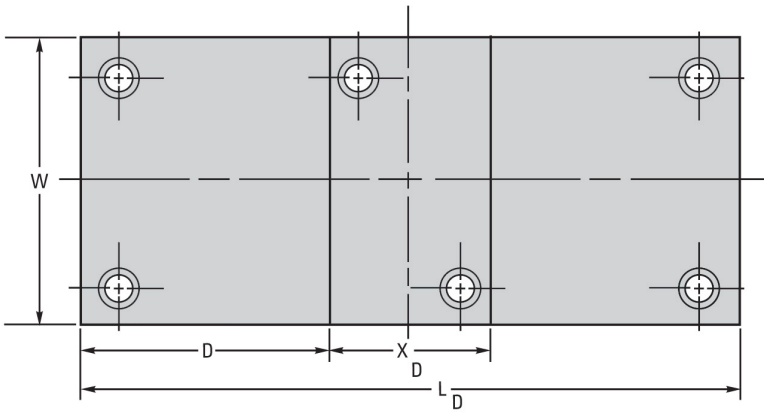
Information available on DME Standard Unit Die Holders and Replacement Units

To assist designers in saving time on laying out cavities and cores within our Standard Unit Dies, CAD Data can be downloaded from www.dme.net. The general dimensions of the complete line of Standard Unit Dies for zinc and aluminum are shown below.

GENERAL DIMENSIONS - SINGLE UNIT DIE HOLDERS



GENERAL DIMENSIONS - DOUBLE UNIT DIE HOLDERS



General Dimensions and Item Numbers of Standard Unit Dies

REPLACEMENT UNIT SIZE		
ITEM NUMBER	D	W
U-108-D	8.000	9.875
U-1012-D	9.875	11.875
U-1215-D	11.875	14.875
U-1518-D	14.875	17.875
U-1215-HD	11.875	14.875
U-1518-HD	14.875	17.875

DOUBLE UNIT DIE HOLDERS		
ITEM NUMBER	XD	LD
DC-108	3.750	19.750
DC-1012	5.3125	25.0625
DC-1215	6.000	29.750
DC-1518	6.000	35.750
DC-1215-HD	6.000	37.750
DC-1518-HD	6.000	44.750

SINGLE UNIT DIE HOLDERS		
ITEM NUMBER	XS	LS
DCS-108	5.875	13.875
DCS-1012	8.000	17.875
DCS-1215	9.125	21.000
DCS-1518	9.125	24.000
DCS-1215-HD	9.125	25.000
DCS-1518-HD	9.125	28.500

Replacement Parts for Unit Holders & Replacement Units

REPLACEMENT PARTS FOR UNIT HOLDERS		
ITEM NUMBER	DESCRIPTION	USED WITH UNIT HOLDERS
DCR0001	WEDGE CLAMP WITH LATCH (UPPER)	DCS-1012 AND DC-1012
DCR0002	WEDGE CLAMP WITH LATCH (LOWER, LEFT)	
DCR0003	WEDGE CLAMP WITH LATCH (LOWER, RIGHT)	
DCR0005	WEDGE CLAMP WITH LATCH (UPPER)	DCS-1215 AND DC-1215
DCR0006	WEDGE CLAMP WITH LATCH (LOWER)	
DCR0008	WEDGE CLAMP WITH LATCH (UPPER)	DCS-1518 AND DC-1518
DCR0009	WEDGE CLAMP WITH LATCH (LOWER)	
DCR0011	WEDGE CLAMP	DC AND DCS-1215-HD
DCR0013	WEDGE CLAMP	DC AND DCS-1518-HD

Ejector Assemblies (Ejector Plate and Ejector Return Pins) with Return Pins

REPLACEMENT PARTS FOR REPLACEMENT UNITS		
ITEM NUMBER	USED WITH REPLACEMENT UNIT	NET WEIGHT
EA-108-D	U-108-D	26
EA-1012-D	U-1012-D	36
EA-1215-D	U-1215-D	62
EA-1518-D	U-1518-D	98
EA-1215-HD	U-1215-HD	68
EA-1518-HD	U-1518-HD	103

For other replacement items, contact

Sprue Spreaders

Sprue Spreaders



BAFFLE TYPE
(VARIOUS NPT)

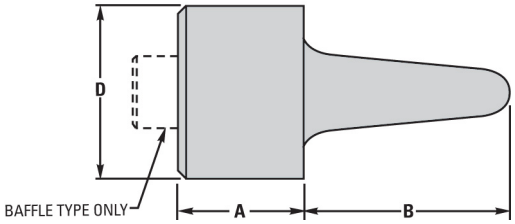


CASCADE TYPE
(1/4 NPT)

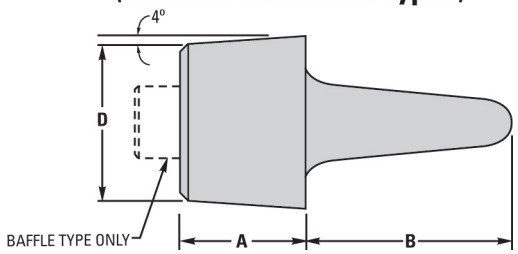
For Replacement Purposes in Existing Zinc Die Cast Dies

(Not for use with aluminum, magnesium, brass, lead or other non-zinc mate-

STRAIGHT SPRUE SPREADERS
(Cascade and Baffle Types)



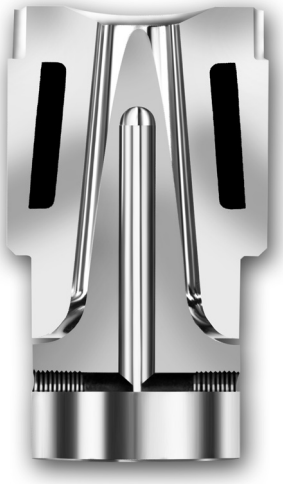
TAPERED SPRUE SPREADERS
(Cascade and Baffle Types)



ITEM NUMBER	SIZE/TYPE (STYLE)	Ø D	A	B
DC-10	SMALL/BAFFLE	1.45	1.25	1.50
DC-15	SMALL/BAFFLE	1.50	1.25	1.50
DC-25	MEDIUM/BAFFLE	1.87	1.37	2.25
DC-110	LARGE/BAFFLE (SHORT)	2.06	1.37	2.19
DC-113	LARGE/CASCADE (SHORT)	2.06	1.37	2.19
DC-115	LARGE/BAFFLE (SHORT)	2.12	1.37	2.19
DC-118	LARGE/CASCADE (SHORT)	2.12	1.37	2.19
DC-210	LARGE/BAFFLE (LONG)		1.37	3.69
DC-213	LARGE/CASCADE (LONG)		1.37	3.69
DC-215	LARGE/BAFFLE (LONG)		1.37	3.69
DC-218	LARGE/CASCADE (LONG)	2.06	1.37	3.69
		2.06		
		2.12		
		2.12		

FOR MATING BUSHINGS, SEE PAGES 21-24

Constant Area Sprue Spreaders and Sprue Bushings



TYPICAL APPLICATION
WITH BAFFLE TYPE COOLING

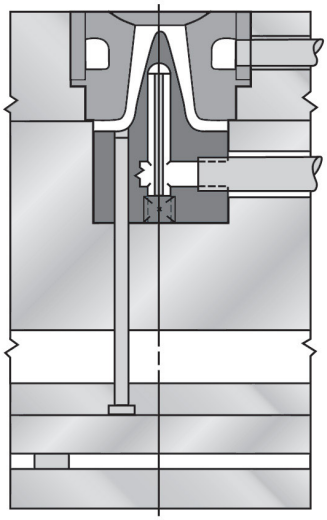


FIGURE 1

WITH CASCADE TYPE COOLING

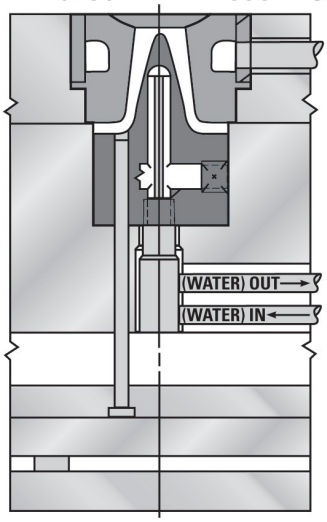


FIGURE 2

Exclusively for Zinc Die Casting
(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)
MORE QUALITY PARTS PER HOUR!

- Constant cross-sectional area reduces turbulence and porosity... IMPROVES PART QUALITY
- Permits faster cavity fill...INCREASES PRODUCTIVITY
- Reduces shot pressure and clamp tonnage requirements
- Can be used with either baffle or cascade type cooling

SPRUE SPREADERS

Constant Area Sprue Spreaders for zinc die casting were developed after
extensive laboratory research. The results of this investigation proved that the metal feed system should be designed with a constant cross-sectional area through the runner system to the gate. This cross-sectional area should be equal to or less than the minimum die inlet area.

Sprue Spreaders are contoured to provide constant area* and control metal flow through the bushing to within .002 in.2. This improved metal flow permits faster cavity fill, while reducing both shot pressure and clamp tonnage requirements. Lower shot pressure combined with constant cross-sectional flow reduces turbulence and
porosity. The result: Increased productivity and improved part quality.

Precision made of heat treated AISI H-13 steel, D-M-E Sprue Spreaders are available in three sizes (small, medium and large) and

*The constant cross-sectional area at any given point will be:
.330 in.2 for the small spreader and bushing assemblies (DC-30 and 40 series);
.450 in.2 for the medium spreader and bushing assemblies (DC-50 and 60 series); and .780 in.2 for the large spreader and bushing assemblies (DC-300 and 400 series).

**See Cascade Water Junctions on page 42.

SPRUE BUSHINGS

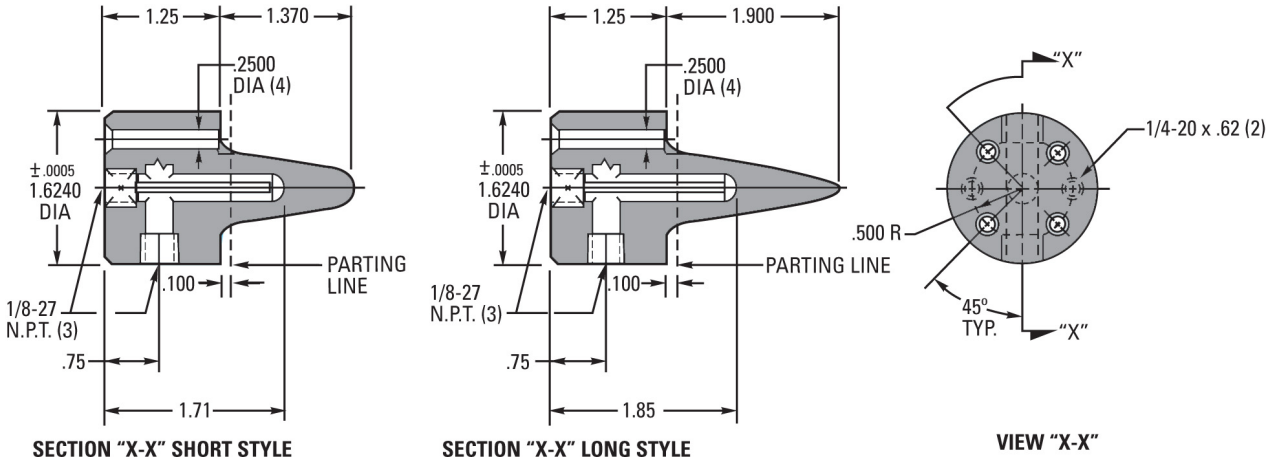
Sprue Bushings for zinc die casting are also precision made of heat treated AISI H-13 steel. They are designed for maximum water cooling capacity and are hermetically brazed and 100 percent leak-tested at 1800 psi. The spherical seat is precision ground and polished to provide a
positive seal with the machine nozzle.

Constant Area Sprue Spreaders and Sprue Bushings (Small Size)

For Zinc Die Casting

Sprue Spreaders (Small)

CROSS SECTIONAL AREA = .330 IN.2



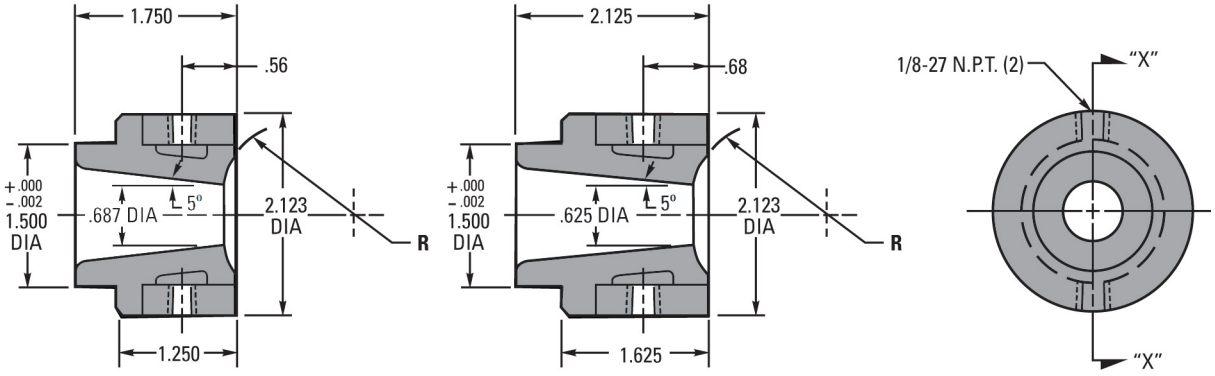


NOTES:

1. Both short and long style runner spreaders
   may be used with baffle type or cascade
   type cooling.
2. To maintain constant area for metal flow,
   always use short style spreaders with short style bushings and long style spreaders with long style bushings.
3. Inlet diameter of the sprue bushing should be equal to or smaller than the outlet diameter of the gooseneck.

SPRUE SPREADERS (SMALL)		
TEM NUMBE	STYLE	REPLACES
DC-30	SHORT	DC-31, DC-32
DC-40	LONG	DC-41, DC-42

Sprue Bushings (Small)



SPRUE BUSHINGS (SMALL - SHORT STYLE)		
ITEM NUMBER	R	REPLACES
DC-33	.750	DC-3
DC-35	1.000	DC-5
DC-37	1.515	DC-7

SPRUE BUSHINGS (SMALL - LONG STYLE)		
ITEM NUMBER	R	REPLACES
DC-44	.750	DC-4
DC-46	1.000	DC-6
DC-48	1.515	DC-8

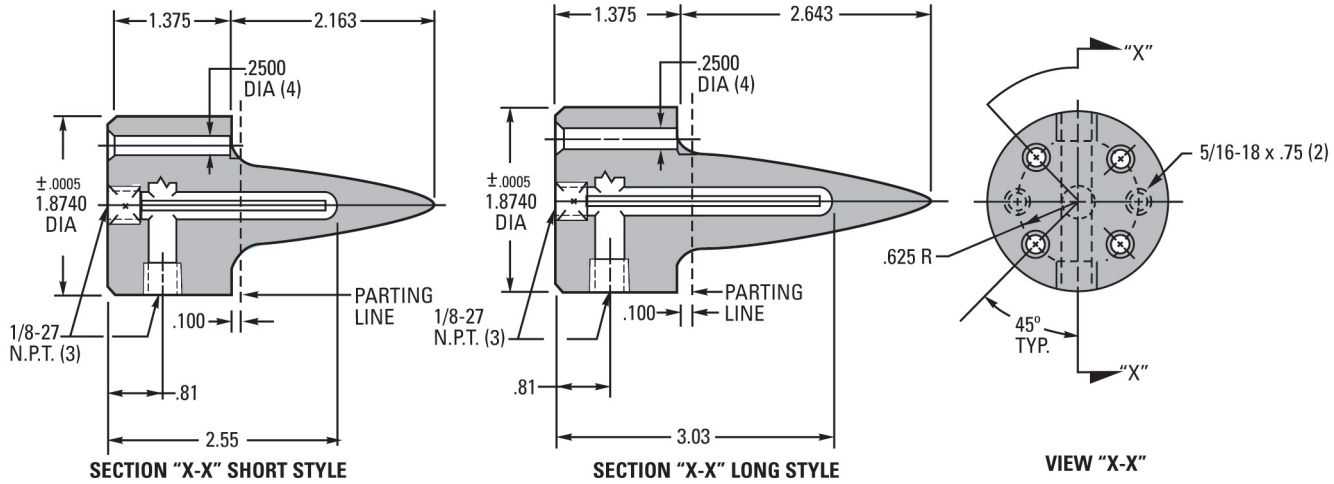
Constant Area Sprue Spreaders & Sprue Bushings (Medium Size)

Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

Sprue Spreaders (Medium)

CROSS SECTIONAL AREA = .450 IN.2



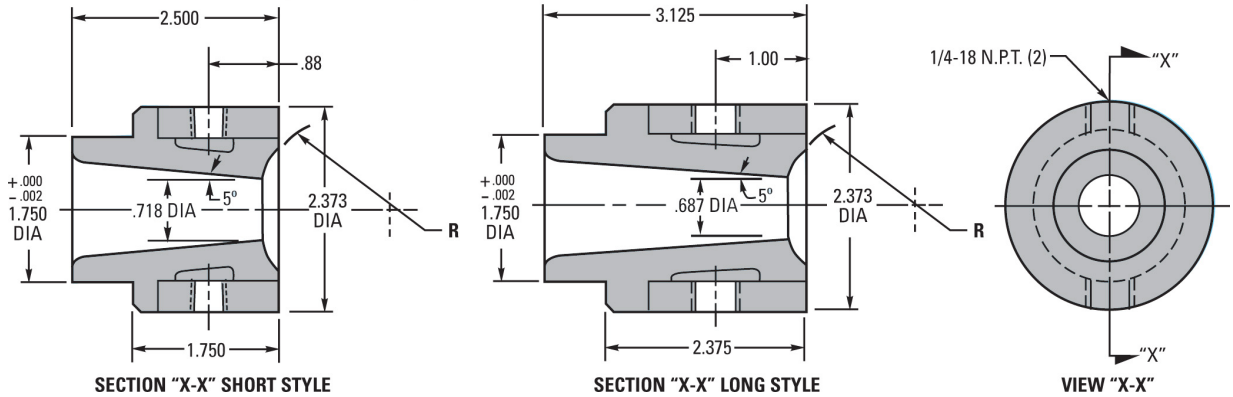


NOTES:

1. Both short and long style runner spreaders may be used with baffle type or cascade type cooling.
2. To maintain constant area for metal flow, always use short style spreaders with short style bushings and long style spreaders with long style bushings.
3. Inlet diameter of the sprue bushing should be equal to or smaller than the outlet diameter of the gooseneck.
4. Sprue Spreaders are premachined for

SPRUE SPREADERS (MEDIUM)		
ITEM NUMBER	STYLE	REPLACES
DC-50	SHORT	DC-55, DC-58
DC-60	LONG	DC-65, DC-68

Sprue Bushings (Medium)



SPRUE BUSHINGS (MEDIUM - SHORT STYLE)		
ITEM NUMBER	R	REPLACES
DC-51	.750	DC-21
DC-52	1.000	DC-22
DC-57	1.515	DC-27

SPRUE BUSHINGS (MEDIUM - LONG STYLE)		
ITEM NUMBER	R	REPLACES
DC-64	.750	DC-24
DC-66	1.000	DC-26
DC-69	1.515	DC-29

Constant Area Sprue Spreaders & Sprue Bushings (Large Size)

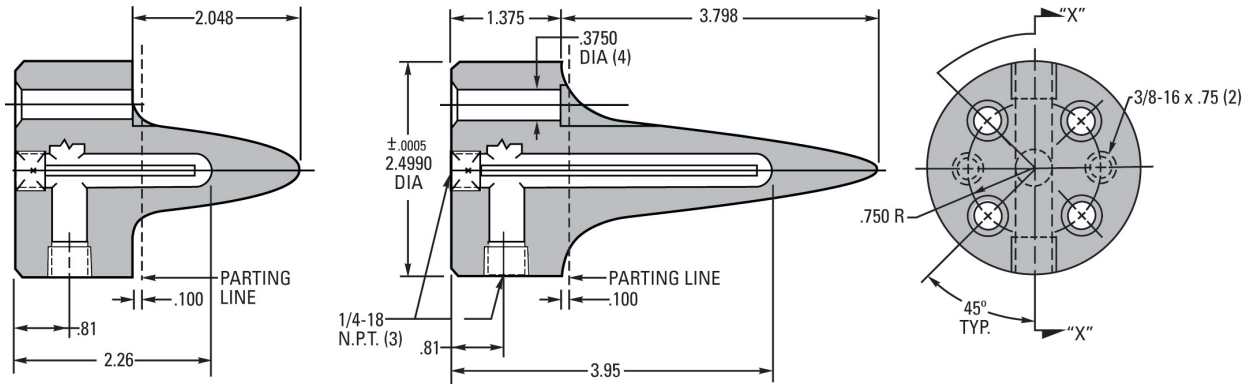
Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

CROSS SECTIONAL AREA = .780 IN.2

Sprue Spreaders (Large)

DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN





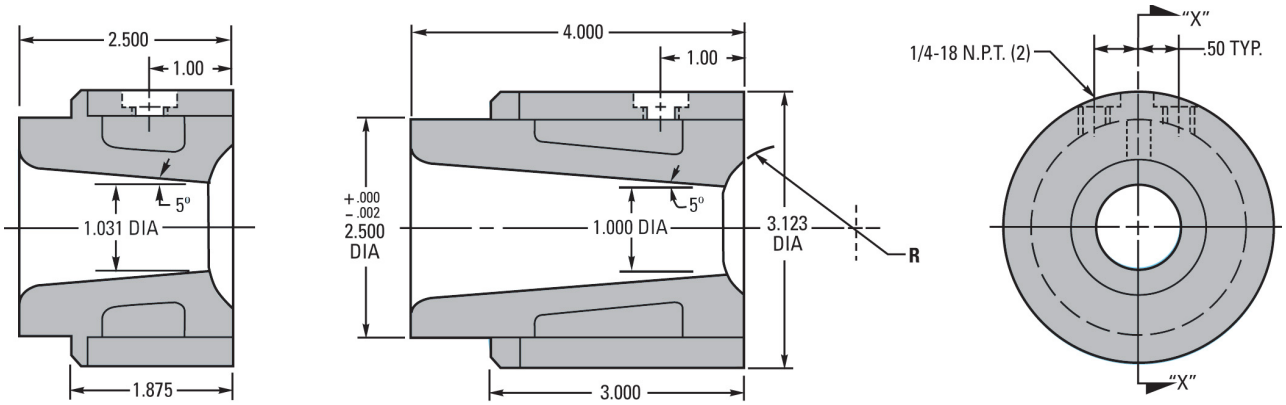
NOTES:

1. Both short and long style sprue spreaders may be used with baffle type or cascade type cooling.
2. To maintain constant area for metal flow, always use short style spreaders with short style bushings and long style spreaders with long style bushings.
3. Inlet diameter of the sprue bushing should be equal to or smaller than the outlet diameter of the gooseneck.
4. Sprue Spreaders are premachined for

SPRUE SPREADERS (LARGE)		
ITEM NUMBER	STYLE	REPLACES
DC-310	SHORT	DC-315, DC-318
DC-410	LONG	DC-415, DC-418

Sprue Bushings (Large)

DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



SPRUE BUSHINGS (LARGE - SHORT STYLE)		
ITEM NUMBER	R	REPLACES
DC-300	1.000	DC-100
DC-301	1.250	DC-101
DC-302	1.515	DC-102
DC-303	1.750	DC-103
DC-304	1.875	DC-104

SPRUE BUSHINGS (LARGE - LONG STYLE)		
ITEM NUMBER	R	REPLACES
DC-400	1.000	DC-200
DC-401	1.250	DC-201
DC-402	1.515	DC-202
DC-403	1.750	DC-203
DC-404	1.875	DC-204

Runner Spreaders and Bushings



Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

- Production proven for casting of thin wall parts
- Eliminates turbulence and reduces porosity…IMPROVES PART QUALITY
- Permits faster cavity fill and sprue cooling…
  REDUCES CYCLE TIME…INCREASES PRODUCTIVITY
- Reduces volume of metal in sprue by 75%…
  OPTIMIZES MACHINE CAPACITY…LOWERS ENERGY COSTS
- Can be used with either cascade or baffle cooling

TYPICAL APPLICATIONS

WITH BAFFLE TYPE COOLING

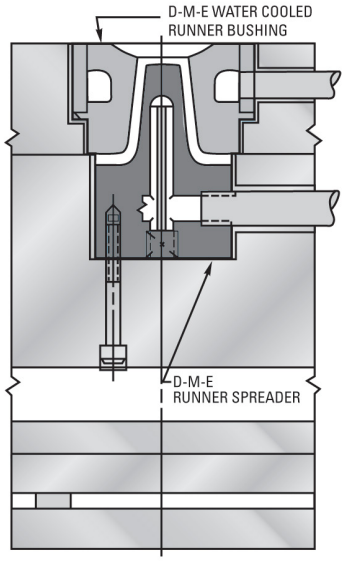


FIGURE 1

WITH CASCADE TYPE COOLING

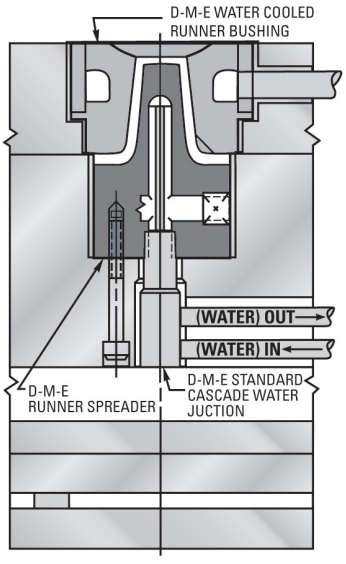


FIGURE 2

RUNNER SPREADERS

Runner Spreaders for zinc die casting were developed after extensive laboratory and field research. The results of this research proved the metal feed system could be improved by extending the runner into the spreader area.

Runner Spreaders are manufactured to permit the die maker to machine one or more runners into the spreader. This improved metal feed system provides faster cavity fill, decreased cycle time, reduced porosity, improved part quality, less shot weight and optimization of machine capacity. In some cases, thin wall parts that cannot be produced by other means can be successfully die cast by using Runner Spreaders.

Precision made of AISI H-13 steel, D-M-E Runner Spreaders are available in three sizes (small, medium and large) and two styles (short and long). All Runner Spreaders are designed to provide two types of cooling, without the need for separate body styles.

They are supplied with baffles installed for baffle type cooling (FIGURE 1). If cascade type cooling is preferred, simply replace the baffle with a cascade water junction* (FIGURE 2). Either way, the Spreader's uniform center cooling design provides ample water flow for faster cycles.

The Runner Spreader is supplied at 40-46 Rc to allow the die maker to mill or EDM the runner(s) in the spreader. For optimum die performance, the runner in the spreader should have a cross-sectional area 8% to 10% larger than the runner in the die. This will cause the velocity of the zinc to increase as it enters the parting line of the die…permitting a faster cavity fill and reducing cycle time.

**See Cascade Water Junctions on page 42.

RUNNER BUSHINGS

Runner Bushings for zinc die casting are also precision made of heat treated AISI H-13 steel. They are designed for maximum water cooling capacity and are hermetically brazed and 100% leak tested at 1800 psi. The spherical seat is ground to provide a positive seal with

Runner Spreaders and Bushings (Small Size)



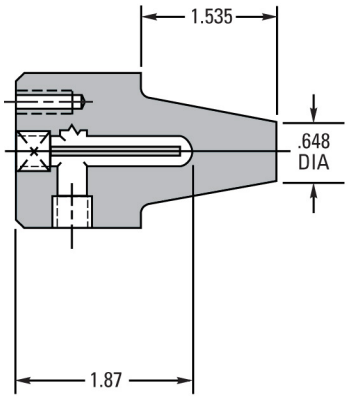
Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

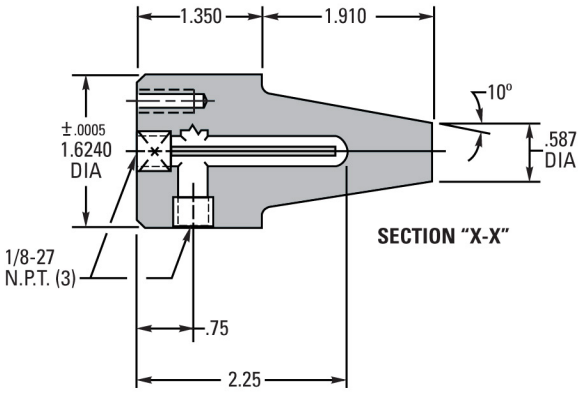
RUNNER SPREADERS (SMALL)	
ITEM NUMBER	STYLE
ZRS-3000	SHORT
ZRS-4000	LONG

Runner Spreaders (Small)

DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN

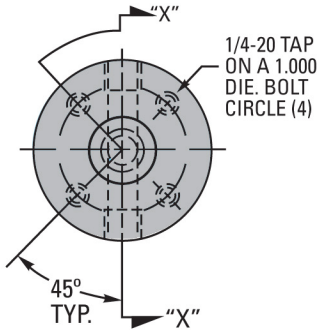


SECTION "X-X" SHORT STYLE



SECTION "X-X"

SECTION "X-X" LONG STYLE



NOTE: MAXIMUM RUNNER DEPTH = .150

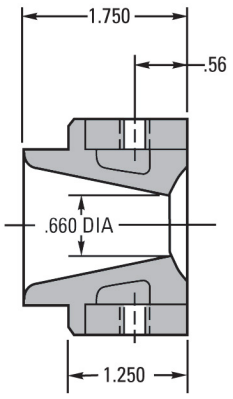
VIEW "X-X"

NOTES:

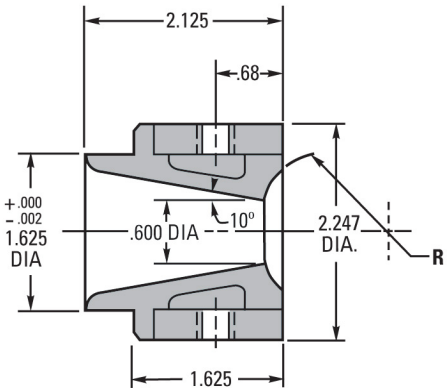
1. Both short and long style runner spreaders may be used with baffle type or cascade type cooling. See page 25.
2. Always use short style spreaders with short style bushings and long

Runner Bushings (Small)

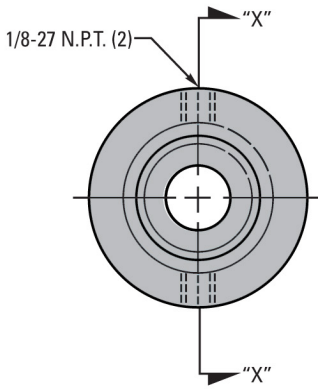
DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



SECTION "X-X" SHORT STYLE



SECTION "X-X" LONG STYLE



VIEW "X-X"

RUNNER BUSHINGS (SMALL - SHORT STYLE)	
ITEM NUMBER	R
ZRB-3034	.750
ZRB-3100	1.000
ZRB-3151	1.515

RUNNER BUSHINGS (SMALL - LONG STYLE)	
ITEM NUMBER	R
ZRB-4034	.750
ZRB-4100	1.000
ZRB-4151	1.515

Runner Spreaders and Bushings (Medium Size)



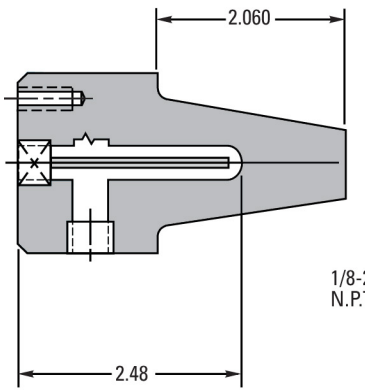
Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

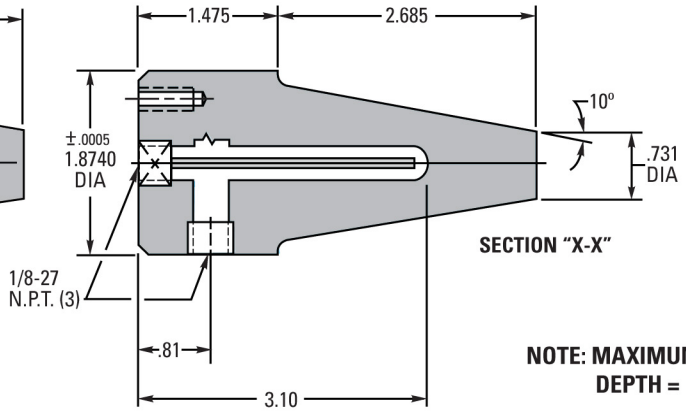
RUNNER SPREADERS (MEDIUM)	
ITEM NUMBER	STYLE
ZRS-5000	SHORT
ZRS-6000	LONG

Runner Spreaders (Medium)

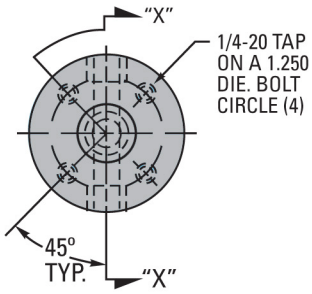
DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



SECTION "X-X" SHORT STYLE



SECTION "X-X" MEDIUM STYLE



NOTE: MAXIMUM RUNNER DEPTH = .225

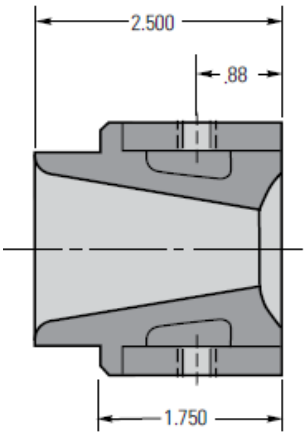
VIEW "X-X"

NOTES:

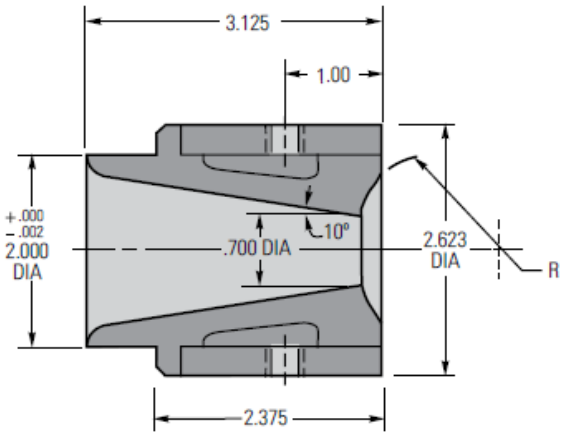
1. Both short and long style runner spreaders may be used with baffle type or cascade type cooling.
2. Always use short style spreaders with short style bushings and long style spreaders with long style bushings.
3. Inlet diameter of the runner bushing should be equal to or smaller than the outlet diameter of

Runner Bushings (Medium)

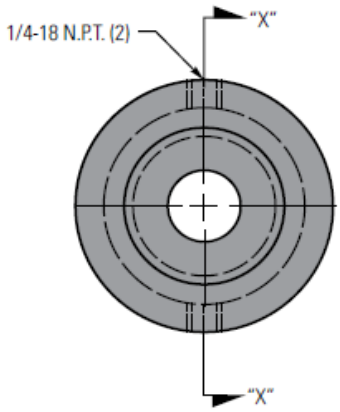
DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



SECTION "X-X" SHORT STYLE



SECTION "X-X" MEDIUM STYLE



VIEW "X-X"

RUNNER BUSHINGS (MEDIUM - SHORT STYLE)	
ITEM NUMBER	R
ZRB-5034	.750
ZRB-5100	1.000
ZRB-5151	1.515

RUNNER BUSHINGS (MEDIUM - LONG STYLE)	
ITEM NUMBER	R
ZRB-6034	.750
ZRB-6100	1.000
ZRB-6151	1.515

Runner Spreaders and Bushings (Large Size)



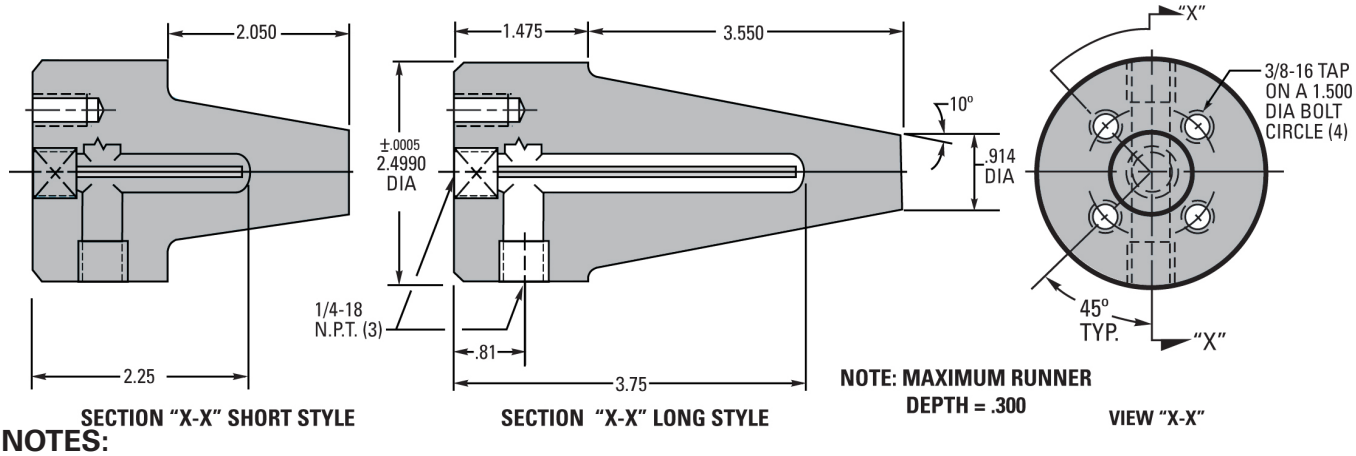
Exclusively for Zinc Die Casting

(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

RUNNER SPREADERS (LARGE)	
ITEM NUMBER	STYLE
ZRS-7000	SHORT
ZRS-8000	LONG

Runner Spreaders (Large)

DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



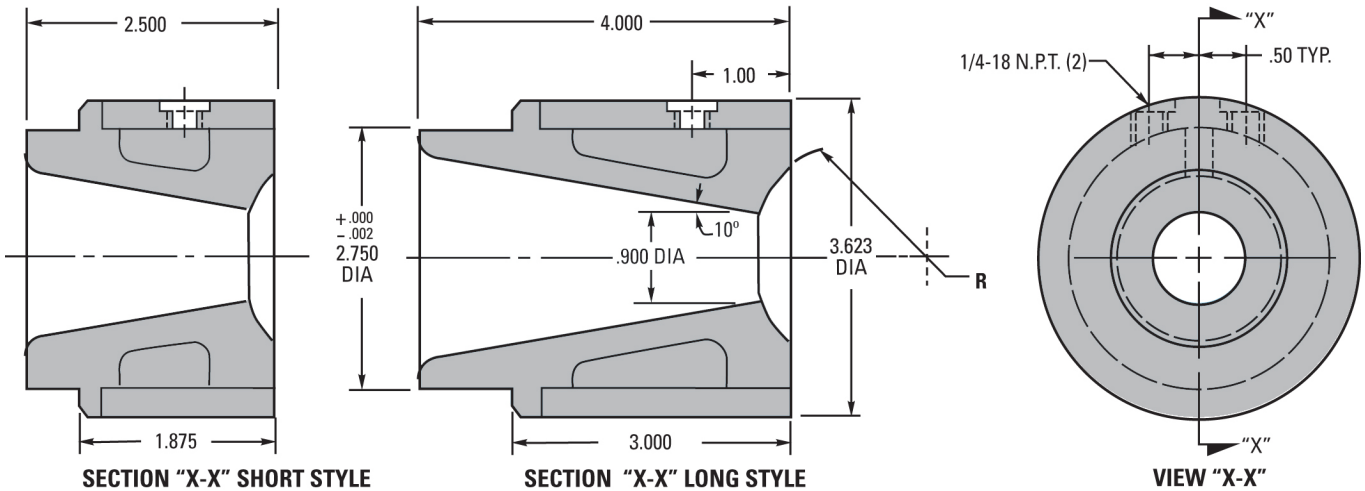
SECTION "X-X" SHORT STYLE | SECTION "X-X" LONG STYLE | NOTE: MAXIMUM RUNNER DEPTH = .300 | VIEW "X-X"

NOTES:

1. Both short and long style runner spreaders may be used with baffle type or cascade type cooling.
   See page 25.
2. Always use short style spreaders with short style bushings and long style spreaders with long style bushings.
3. Inlet diameter of the runner bushing should be equal to or smaller than the outlet diameter of the gooseneck.

Runner Bushings (Large)

DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN



SECTION "X-X" SHORT STYLE | SECTION "X-X" LONG STYLE | VIEW "X-X"

RUNNER BUSHINGS (LARGE - SHORT STYLE)	
ITEM NUMBER	R
ZRB-7100	1.000
ZRB-7125	1.250
ZRB-7151	1.515

RUNNER BUSHINGS (LARGE - LONG STYLE)	
ITEM NUMBER	R
ZRB-8100	1.000
ZRB-8125	1.250
ZRB-8151	1.515

Die Clamps



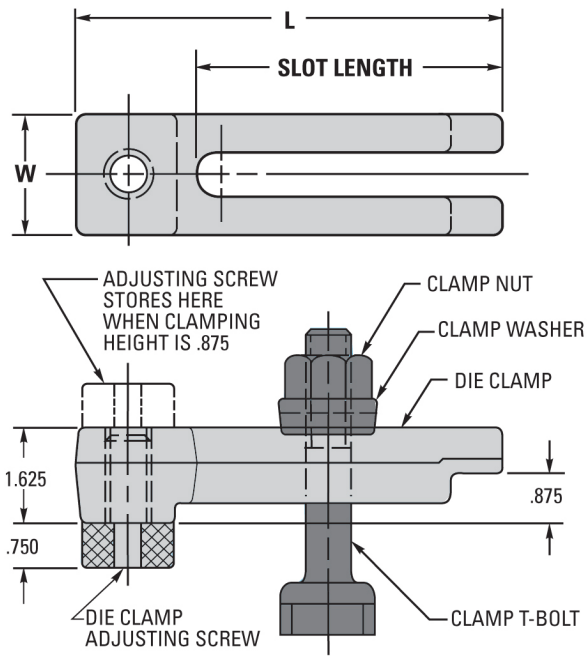
Die Clamps

For Die Cast Dies

Forged from Hi-tensile steel and thru-hardened. The design features a hardened, no-turn washer and a shape and range of sizes that permit universal application for any die. Other features include an adjusting screw large enough to span the "T" slot in platens with ample bearing surface on either side and a standard

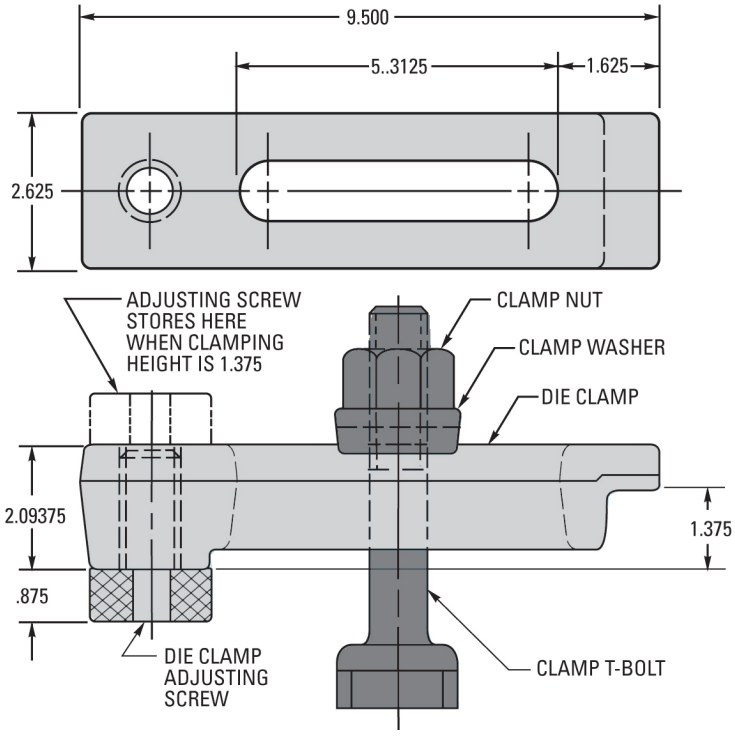
DIE CLAMP ASSEMBLY CONSISTS OF:
1-DIE CLAMP
1-CLAMP WASHER
1-CLAMP T-BOLT
1-DIE CLAMP ADJUSTING SCREW
1-CLAMP NUT

ITEM NO'S. DMCA-5-5 TO DMCA-6-7



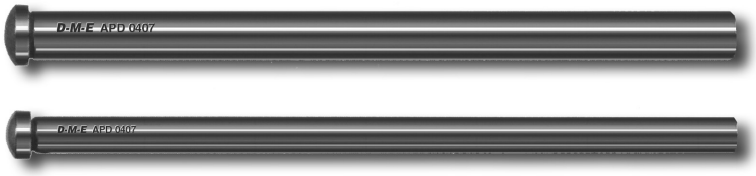
DIMEN-

ITEM NO. DMCA-8-95

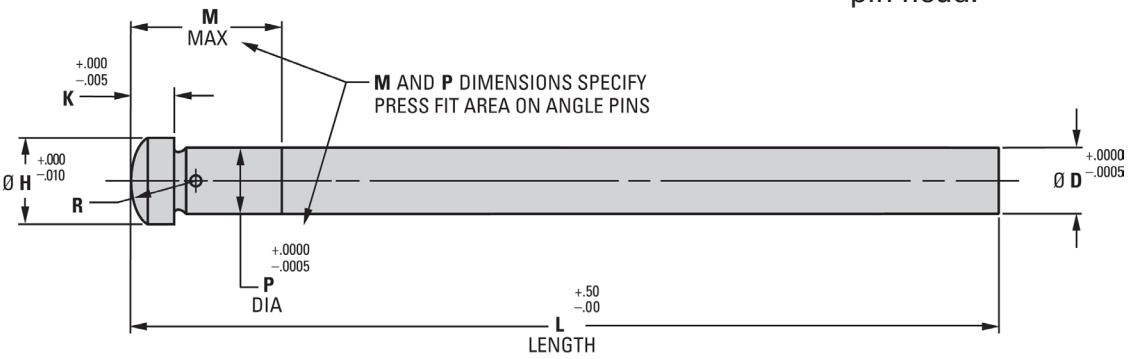


DIE CLAMP ASSEMBLY ITEM NUMBER	CLAMP DIMENSIONS			CLAMP T-BOLT SIZE THD. X LENGTH	REPLACEMENT PARTS	
	L LENGTH	W WIDTH	SLOT LENGTH		T-BOLT, NUT & WASHER KIT	ADJUSTING SCREW
DMCA-5-5	5.1875	1.875	3.375	.625 - 11 X 4.500	DCK-5	DMCAS-6
DMCA-5-7	7.000	1.875	5.000	.625 - 11 X 4.500		
DMCA-6-5	5.1875	2.000	3.375	.750 - 10 X 4.500	DCK-6	
DMCA-6-7	7.000	2.000	5.000	.750 - 10 X 4.500		
DMCA-8-95	9.500	2.625	5.3125	1.000 - 8 X 6	DCK-8	DMCAS-8

Angle Pins



Angle Pins are supplied with a pre-machined spherical radius on the head to eliminate angle grinding usually required on the pin head.



Angle Pins– APD

Material: H-13 Type Steel, 65-74 HRC Nitrided Surface, 30-35 HRC Core

ITEM NUMBER	Ø D	L LENGTH	M MAX	Ø H	K HD THK	Ø P	R SPH RAD
APD-0305	.3740	5.00	.87	.500	.250	.3765	.375
APD-0307		7.00	1.37				
APD-0405	.4990	5.00	.87	.625	.250	.5015	.500
APD-0407		7.00	1.37				
APD-0410		10.00	1.37				
APD-0505	.6240	5.00	.87	.750	.250	.6265	.625
APD-0507		7.00	1.37				
APD-0510		10.00	1.37				
APD-0607	.7490	7.00	1.37	.875	.312	.7515	.750
APD-0610		10.00	1.37				
APD-0614		14.00	1.37				
APD-0807	.9990	7.00	1.37	1.125	.312	1.0015	1.000
APD-0810		10.00	1.37				
APD-0814		14.00	1.37				

See D-M-E Standard Angle Pin Inserts, pre-machined for 10°, 15° or 20° angles.

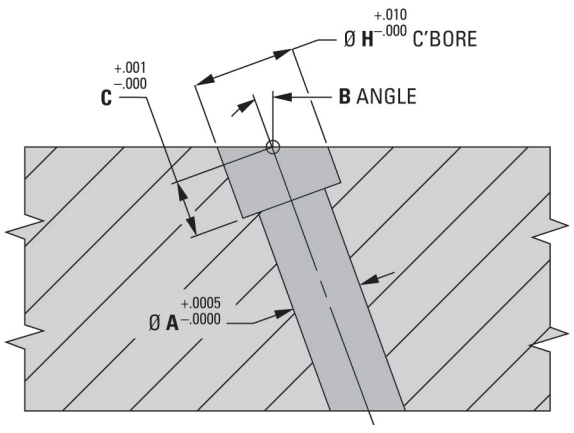
Die Machining and Installation Dimensions

ITEM NUMBER	Ø A*	B	C	Ø D
APD-0305 AND APD-0307	*.3765	10°	.256	.562
		15°	.264	
		20°	.275	
APD-0405 THRU APD-0410	*.5015	10°	.258	.688
		15°	.268	
		20°	.283	
APD-0505 THRU APD-0510	*.6265	10°	.260	.812
		15°	.273	
		20°	.291	
APD-0607 THRU APD-0614	*.7515	10°	.324	.938
		15°	.339	
		20°	.361	
APD-0807 THRU APD-0814	*1.0015	10°	.328	1.188
		15°	.348	
		20°	.377	

*REFER TO INSTALLATION NOTE #1.

Installation Notes

1. Ø A dimensions specified for hole will provide approximately .000 to .001 clearance with the Ø P or press fit area of the angle pins.
   Diemaker to adjust Ø A hole dimensions to obtain specific fit required.
2. Cut angle pin to length as required to achieve desired travel on slide.
   Typically, a spherical radius or cone shape with a spherical radius is



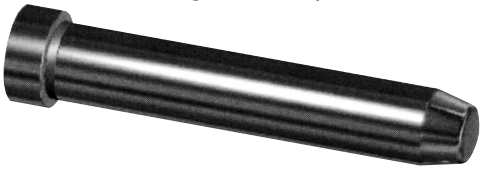
ALL ITEMS IN STOCK.

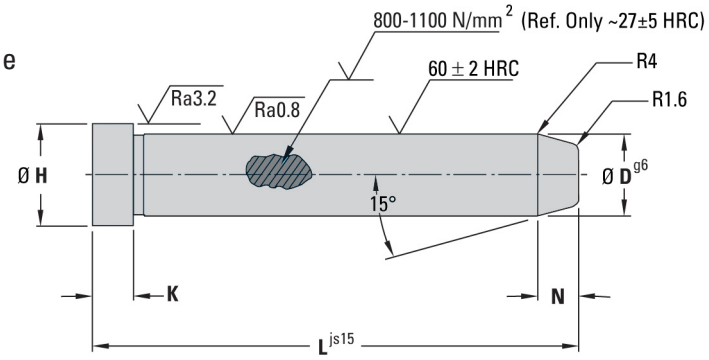
How to order: Use Item Numbers in charts for ordering.

Metric Angle Pins (Guide Pins)

Metric Angle Pins

Can be used as angle (CAM) pins or as straight leade





MATERIAL: DIN 1.7131 (AISI 5115 TYPE) STEEL
TYPE: APD

Ø D	Ø H	K	N	L	ITEM NUMBER
10	12	3	5	40	APD 10-40
				60	APD 10-60
				80	APD 10-80
				100	APD 10-100
				110	APD 10-110
				120	APD 10-120
12	16	6	5	40	APD 12-40
				60	APD 12-60
				80	APD 12-80
				100	APD 12-100
				110	APD 12-110
				120	APD 12-120
				140	APD 12-140
				160	APD 12-160
14	18	8	6	40	APD 14-40
				60	APD 14-60
				80	APD 14-80
				100	APD 14-100
				110	APD 14-110
				120	APD 14-120
				140	APD 14-140
				160	APD 14-160
				180	APD 14-180
				200	APD 14-200
				210	APD 14-210
				220	APD 14-220
				230	APD 14-230
16	20	8	7	40	APD 16-40
				60	APD 16-60
				80	APD 16-80
				100	APD 16-100
				110	APD 16-110
				120	APD 16-120
				140	APD 16-140
				160	APD 16-160
				180	APD 16-180
				200	APD 16-200
				210	APD 16-210
				220	APD 16-220
				230	APD 16-230

Ø D	Ø H	K	N	L	ITEM NUMBER
18	22	8	8	40	APD 18-40
				60	APD 18-60
				80	APD 18-80
				100	APD 18-100
				110	APD 18-110
				120	APD 18-120
				140	APD 18-140
				160	APD 18-160
				180	APD 18-180
				200	APD 18-200
				210	APD 18-210
				220	APD 18-220
				230	APD 18-230
20	24	8	8	60	APD 20-60
				80	APD 20-80
				100	APD 20-100
				110	APD 20-110
				120	APD 20-120
				140	APD 20-140
				160	APD 20-160
				180	APD 20-180
				200	APD 20-200
				210	APD 20-210
				220	APD 20-220
				230	APD 20-230
22	26	15	8	80	APD 22-80
				100	APD 22-100
				110	APD 22-110
				120	APD 22-120
				140	APD 22-140
				160	APD 22-160
				180	APD 22-180
				200	APD 22-200
				210	APD 22-210
				220	APD 22-220
				230	APD 22-230
24	28	15	8	80	APD 24-80
				100	APD 24-100
				110	APD 24-110
				120	APD 24-120

Ø D	Ø H	K	N	L	ITEM NUMBER
24	28	15	8	140	APD 24-140
				160	APD 24-160
				180	APD 24-180
				200	APD 24-200
				210	APD 24-210
				220	APD 24-220
				230	APD 24-230
				240	APD 24-240
				270	APD 24-270
30	34	15	8	180	APD 30-180
				200	APD 30-200
				210	APD 30-210
				220	APD 30-220
				240	APD 30-240
				270	APD 30-270
				300	APD 30-300
34	38	15	8	100	APD 34-100
				120	APD 34-120
				170	APD 34-170
				190	APD 34-190
				210	APD 34-210
				250	APD 34-250
40	48	15	10	160	APD 40-160
				200	APD 40-200
				240	APD 40-240
				300	APD 40-300
42	48	15	10	160	APD 42-160
				200	APD 42-200
				240	APD 42-240
				300	APD 42-300
50	58	15	10	160	APD 50-160
				200	APD 50-200
				240	APD 50-240
				300	APD 50-300
				360	APD 50-360

ALL ITEMS IN STOCK.

HOW to order: Use Item Numbers in charts for ordering.

Metric ISO Tolerances

NOMINAL SIZE (MM)		TOLERANCE (MM)											
OVER	TO	G6		H8		K6		M6		H5		H7	
0	3	-.002	-.008	0	-.014	+.006	0	+.008	+.002	+.004	0	+.010	0
3	6	-.004	-.012	0	-.018	+.009	+.001	+.012	+.004	+.005	0	+.012	0
6	10	-.005	-.014	0	-.022	+.010	+.001	+.015	+.006	+.006	0	+.015	0
10	18	-.006	-.017	0	-.027	+.012	+.001	+.018	+.007	+.008	0	+.018	0
18	30	-.007	-.020	0	-.033	+.015	+.002	+.021	+.008	+.009	0	+.021	0
30	50	-.009	-.025	0	-.039	+.018	+.002	+.025	+.009	+.011	0	+.025	0
50	80	-.010	-.029	0	-.046	+.021	+.002	+.030	+.011	+.013	0	+.030	0
80	120	-.012	-.034	0	-.054	+.025	+.003	+.035	+.013	+.015	0	+.035	0
120	180	-.014	-.039	0	-.063	+.028	+.003	+.040	+.015	+.018	0	+.040	0

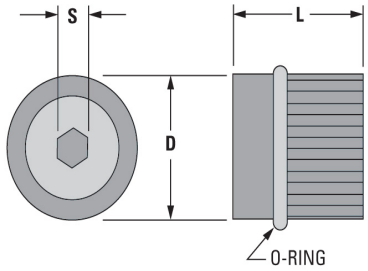
Brass Pressure Plugs

Threadless Brass Pressure Plugs (Inch) – TBP

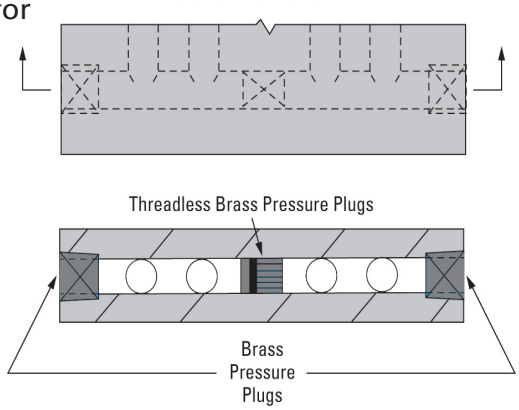


- Seals even in rough or corroded holes
- No tapping required
- Withstands pressures up to 72 psi

Threadless Brass Pressure Plugs employ a time-saving expandable O-ring design. As the plug's socket head screw is tightened, the O-ring expands to provide a positive seal. No tapping is required and installation or removal is quick and easy. The smaller diameters are ideal for use in cavity inserts or slide blocks where space is limited. (Not recommended for use in oil lines.)



TYPICAL APPLICATIONS



ITEM NUMBER	NOMINAL SIZE	LENGTH L	HEX SIZE	DRILL SIZE D	VITON REPLACEMENT O-RINGS (PKG. OF 10)
TBP-10	1/8	.50	5/64	11/32	RCV0009
TBP-10-0S	1/8	.50	5/64	23/64	RCV0009
TBP-20	1/4	.56	1/8	7/16	RCV0011
TBP-20-0S	1/4	.56	1/8	29/64	RCV0011
TBP-40	3/8	.62	1/8	9/16	RCV0110
TBP-40-0S	3/8	.62	1/8	37/64	RCV0110
TBP-60	1/2	.62	1/8	11/16	RCV0112
TBP-60-0S	1/2	.62	1/8	45/64	RCV0112

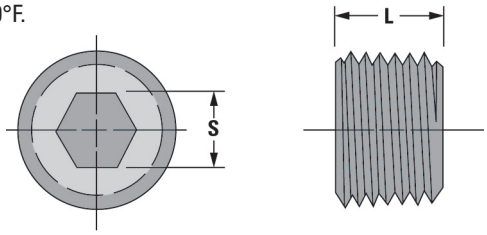
NOTE: O-RING MATERIAL IS SUITABLE FOR USE WITH TEMPERATURES UP TO 300°F.

Brass Pressure Plugs (Inch) – BP



- For steam, water or oil lines
- Positive tapered seal
- Withstands pressures up to 600 psi

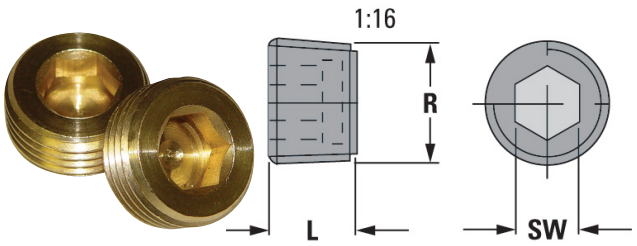
Brass Pressure Plugs give a high-pressure seal through a deliberate difference of taper between the plug and the tapped hole. Flush seating is achieved through closer control of thread forms,



HIGH-PRESSURE SEAL
Dryseal thread form with 7/8 taper per foot. Install in standard 3/4 TPF tapped hole.

ITEM NUMBER	NOMINAL SIZE (NPT)	LENGTH L	HEX SIZE	THREADS TAP INCH	TAP DRILL
BP-10	1/8	.250	3/16	27	21/64
BP-20	1/4	.406	1/4	18	27/64
BP-40	3/8	.406	5/16	18	9/16
BP-60	1/2	.531	3/8	14	11/16
BP-100	3/4	.531	9/16	14	57/64
BP-140	1	.656	5/8	111/2	11/8

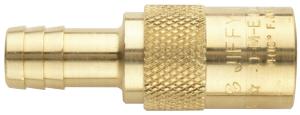
Brass Pressure Plugs (Metric) – AN



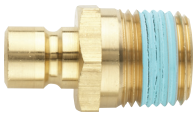
ITEM NUMBER	R	L	SW
AN-8	1/8" BSPT	8	5
AN-4	1/4" BSPT	10	7
AN-3	3/8" BSPT	10	8
AN-10	M 10 X 1	8	5
AN-2	1/2" BSPT	10	10

Jiffy Tite® Connectors

Jiffy-Tite plugs used with Jiffy-Tite (flow-thru type) Sockets and Jiffy-Matic (automatic shut-off type) Sockets are designed for use with die-cast dies in water, air or oil lines. They feature a combination brass and stainless steel leakproof construction; have a maximum rated capacity of 200 psi; and withstand temperatures up to 400°F, with supplied Viton seals. Jiffy-Tite and Jiffy-Matic Sockets can be used interchangeably with the same Jiffy-Tite Plugs already in your die. Comparable sizes of both type sockets have the same O.D., permitting interchangeability even when the plugs are flush mounted.

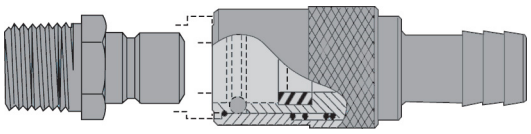


SOCKET



PLUG

Jiffy-Tite® Sockets – JS
(Flow-Thru Type)

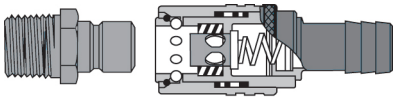


Jiffy-Tite Sockets have a large thru hole to provide unrestricted flow. These quick-connection couplers are available with either straight, 45° or 90° hose stems, or standard female or male NPT threads.

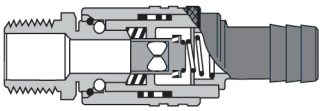
Jiffy-Tite and Jiffy-Matic Sockets have the same O.D., permitting complete interchangeability with Jiffy-Tite Plugs installed in your die.

The Jiffy-Tite or Jiffy-Matic Sockets can be used with either

Jiffy-Matic® Sockets – JS
(Automatic Shut-Off Type)



VALVE CLOSED



VALVE OPEN

Jiffy-Matic Sockets open automatically when connected and shut off automatically when disconnected. Unlike most valve-type connectors, Jiffy-Matic Sockets are designed to keep flow restriction to a minimum.

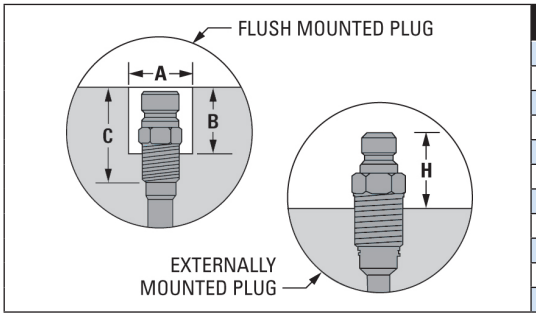
Jiffy-Tite Connectors

JIFFY-TITE SOCKETS					JIFFY-MATIC SOCKETS	
DESCRIPTION	ITEM NUMBER	FITS HOSE I.D. OR PIPE THREAD	HOSE STEM I.D. OR THRU HOLE	USED WITH STD MALE, FEMALE OR EXTENSION PLUGS	ITEM NUMBER	DESCRIPTION
	JS-204	1/4	3/16	JP-(F/B) 250 TO 253	JS-204-V	
	JS-205	5/16	1/4	JP-(F/B) 250 TO 253	JS-205-V	
	JS-206	3/8	1/4	JP-(F/B) 250 TO 253	JS-206-V	
	JS-306	3/8	1/4	JP-(F/B) 351 TO 354	JS-306-V	
	JS-308	1/2	3/8	JP-(F/B) 351 TO 354	JS-308-V	
	JS-504	1/2	3/8	JP-(F) 553 TO 556	JS-504-V	
STRAIGHT STEM	JS-506	3/4	5/8	JP-(F) 553 TO 556	JS-506-V	STRAIGHT STEM
	JS-214	1/4	3/16	JP-(F/B) 250 TO 253	JS-214-V	
	JS-215	5/16	1/4	JP-(F/B) 250 TO 253	JS-215-V	
	JS-216	3/8	1/4	JP-(F/B) 250 TO 253	JS-216-V	
	JS-316	3/8	1/4	JP-(F/B) 351 TO 354	JS-316-V	
	JS-318	1/2	3/8	JP-(F/B) 351 TO 354	JS-318-V	
	JS-514	1/2	3/8	JP-(F) 553 TO 556	JS-514-V	
90° STEM	JS-516	3/4	9/16	JP-(F) 553 TO 556	JS-516-V	90° STEM
	JS-224	1/4	3/16	JP-(F/B) 250 TO 253	JS-224-V	
	JS-225	5/16	1/4	JP-(F/B) 250 TO 253	JS-225-V	
	JS-226	3/8	1/4	JP-(F/B) 250 TO 253	JS-226-V	
	JS-326	3/8	1/4	JP-(F/B) 351 TO 354	JS-326-V	
	JS-328	1/2	3/8	JP-(F/B) 351 TO 354	JS-328-V	
	JS-524	1/2	3/8	JP-(F) 553 TO 556	JS-524-V	
45° STEM	JS-526	3/4	9/16	JP-(F) 553 TO 556	JS-526-V	45° STEM
	JS-200	1/8 NPT	1/4	JP-(F/B) 250 TO 253	JS-200-V	
	JS-300	1/4 NPT	3/8	JP-(F/B) 351 TO 354	JS-300-V	
FEMALE NPT THREAD	JS-500	1/2 NPT	5/8	JP-(F) 553 TO 556	JS-500-V	FEMALE NPT THREAD
	JS-201-M	1/8 NPT	1/4	JP-(F/B) 250 TO 253	JS-201-MV	
	JS-302-M	1/4 NPT	3/8	JP-(F/B) 351 TO 354	JS-302-MV	
MALE NPT THREAD	JS-504-M	1/2 NPT	9/16	JP-(F) 553 TO 556	JS-504-MV	MALE NPT THREAD

Jiffy-Tite® Plugs & Extension Plugs

Jiffy-Tite® Plugs – JP

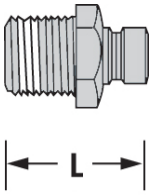
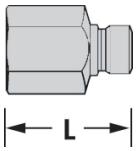
Male Plug Mounting Information

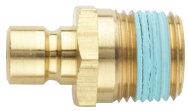


ITEM NUMBER	NPT	HEX SIZE	A	B	C	H
JP-250	1/16	7/16	11/16	11/16	1"	5/8
* JP-251	1/8	7/16	11/16	11/16	1"	5/8
* JP-252-(SV)	1/4	9/16	27/32	15/16	13/16	7/8
* JP-253-(SV)	3/8	11/16	1.000	15/16	11/4	29/32
JP-351	1/8	9/16	1.000	15/16	11/4	7/8
* JP-352-(SV)	1/4	9/16	1.000	13/32	17/16	11/32
* JP-353-(SV)	3/8	11/16	1.000	11/8	17/16	11/16
* JP-354-(SV)	1/2	7/8	13/16	11/4	19/16	13/16
JP-553	3/8	7/8	11/4	13/16	15/8	11/8
* JP-554	1/2	7/8	11/4	11/2	113/16	17/16
* JP-556	3/4	11/8	11/2	19/16	17/8	11/2

Jiffy-Tite Male – JP and Female Plugs – JPF

For Use with Jiffy-Tite or Jiffy-Matic Sockets (Including SV Series)

DESCRIPTION	LENGTH L	PIPE THREAD	Ø HOLE	HEX SIZE	ITEM NUMBER	USED WITH SOCKETS
 MALE PLUG (BRASS)	59/64	1/16 NPT	3/16	7/16	JP-250	JS-204-(V/SV) TO JS-226-(V/SV)
	59/64	1/8 NPT	1/4	7/16	JP-251	
	15/32	1/4 NPT	1/4	9/16	JP-252	
	13/16	3/8 NPT	1/4	11/16	JP-253	
	13/16	1/8 NPT	1/4	9/16	JP-351	JS-306-(V/SV) TO JS-328-(V/SV)
	125/64	1/4 NPT	3/8	9/16	JP-352	
	125/64	3/8 NPT	3/8	11/16	JP-353	
	137/64	1/2 NPT	3/8	7/8	JP-354	
	19/16	3/8 NPT	7/16	7/8	JP-553	JS-504-(V) TO JS-526-(V)
	13/4	1/2 NPT	5/8	7/8	JP-554	
	13/4	3/4 NPT	5/8	11/8	JP-556	
 FEMALE PLUG** (BRASS)	1"	1/16 NPT	1/4	1/2	JPF-0250	JS-204-(V/SV) TO JS-226-(V/SV)
	1"	1/8 NPT	1/4	1/2	JPF-0251	
	19/32	1/4 NPT	1/4	5/8	JPF-0252	
	113/32	3/8 NPT	1/4	3/4	JPF-0253	
	19/32	1/8 NPT	11/32	5/8	JPF-0351	JS-306-(V/SV) TO JS-328-(V/SV)
	131/64	1/4 NPT	3/8	5/8	JPF-0352	
	137/64	3/8 NPT	3/8	3/4	JPF-0353	
	149/64	1/2 NPT	3/8	15/16	JPF-0354	
	111/16	3/8 NPT	9/16	15/16	JPF-0553	JS-504-(V) TO JS-526-(V)
	149/64	1/2 NPT	5/8	15/16	JPF-0554	
	149/64	3/4 NPT	5/8	11/8	JPF-0556	



MALE PLUG



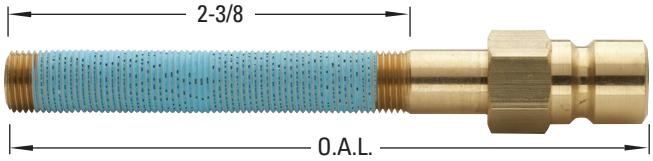
FEMALE PLUG

All Male Plugs (including SV-Series) and Extension Plugs are now supplied with Jiffy-Seal™ thread sealant. Eliminating the initial need for joint tape or compound, the sealant will withstand temperatures up to 400°F and pressures up to 200 psi.

Jiffy-Tite® Extension Plugs* – JPB

For Use with Jiffy-Tite or Jiffy-Matic Sockets (Including SV Series)

Threaded area with Jiffy-Seal Thread Sealant pre-

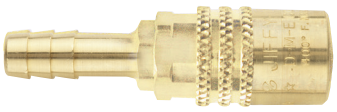


**Designed for use with existing or new NPT tapered pipe-tapped hole in die. Straight threaded area allows easy length adjustment. Cut to suit.
No tapering or re-tapping necessary.

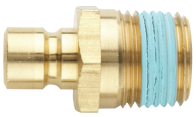
PIPE THREAD*	HEX SIZE	O.A.L.	ITEM NUMBER	USED WITH SOCKETS
1/8	7/16	4"	JPB-2514	JS-204-(V/SV) TO JS-226-(V/SV)
1/8	7/16	6"	JPB-2516	
1/8	7/16	8"	JPB-2518	
1/4	9/16	4"	JPB-2524	
1/4	9/16	6"	JPB-2526	
1/4	9/16	8"	JPB-2528	
3/8	11/16	4"	JPB-2534	
3/8	11/16	6"	JPB-2536	
3/8	11/16	8"	JPB-2538	
1/8	9/16	4"	JPB-3514	JS-306-(V/SV) TO JS-328-(V/SV)
1/8	9/16	6"	JPB-3516	
1/8	9/16	8"	JPB-3518	
1/4	9/16	4"	JPB-3524	
1/4	9/16	6"	JPB-3526	
1/4	9/16	8"	JPB-3528	
3/8	11/16	4"	JPB-3534	
3/8	11/16	6"	JPB-3536	
3/8	11/16	8"	JPB-3538	

SV-Series Jiffy-Matic Connectors

SV-Series Jiffy-Matic® Connectors – JS
Two-Way Automatic Shut-Off Type



SOCKET



PLUG

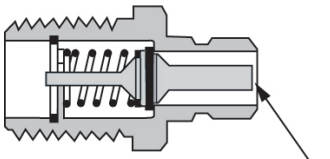
The line of SV-Series Jiffy-Matic Connectors features a male plug and socket, each with an automatic shut-off steamed valve. These connectors are designed for use with die-cast dies in water, air or heat transfer oil lines. They feature a combination of brass and stainless steel in a leakproof construction, have a maximum rated capacity of 200 psi and will withstand temperatures up to 400°F with supplied Viton seals.

The SV-Series Jiffy-Matic Male Plugs adds the capability
of automatic shut-off at the die, thereby minimizing coolant loss.

SV-Series Jiffy-Matic Sockets can be used interchangeably with the Jiffy-Tite plugs already in your die. However, the SV-Series Jiffy-Matic Male Plugs can ONLY be used with the SV-Series Jiffy-Matic Sockets. Comparable sizes of both types of sockets and plugs have the same O.D., permitting interchangeability even when
the plugs are flush-mounted.

The SV-Series Male Plugs are now supplied with

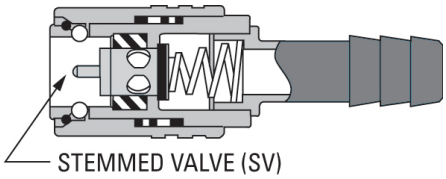
SV-Series Jiffy-Matic® Male Plugs
(Automatic Shut-Off Type with Stemmed Valve)



STEMMED VALVE (SV)

The SV-Series Jiffy-Matic Male Plugs feature an automatic shut-off stemmed valve. This plug design adds the capability of automatic shut-off at the die. The plug's shut-off stemmed valve minimizes coolant loss, thereby decreasing clean-up time and the possibility of rust occurring on the die surface. The SV-Series
Jiffy-Matic Male Plug can ONLY be used with the SV-Series
Jiffy-Matic Socket.

SV-Series Jiffy-Matic® Sockets
(Automatic Shut-Off Type with Stemmed Valve)



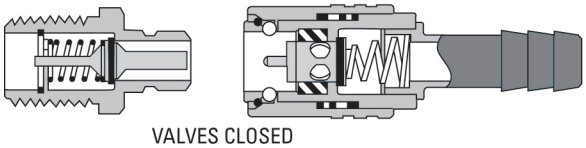
STEMMED VALVE (SV)

The SV-Series Jiffy-Matic Sockets feature an automatic shut-off stemmed valve that is designed to work with the SV-Series Jiffy-Matic Male Plugs, as well as the standard male, female and extension plugs. The sockets open automatically when connected and shut-off automatically when disconnected. The SV-Series Jiffy-Matic Sockets are designed to keep flow restriction to a minimum and are available with either straight, 45° or 90° hose stems.

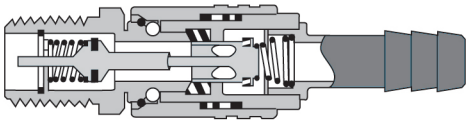
Operating Combinations

TWO-WAY SHUT-OFF*

SV-SERIES* MALE PLUGS	WITH	SV-SERIES SOCKETS (EQUIVALENT SIZE)



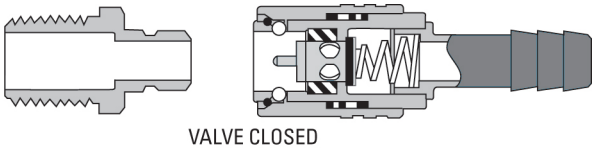
VALVES CLOSED



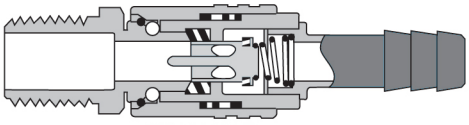
VALVES OPEN

ONE-WAY SHUT-OFF

STD. MALE, FEMALE OR EXTENSION PLUGS	WITH	SV-SERIES SOCKETS (EQUIVALENT SIZE)



VALVE CLOSED

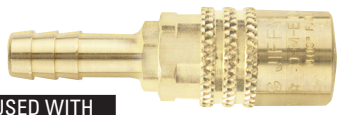


VALVE OPEN

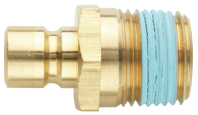
*THE SV-SERIES JIFFY-MATIC MALE PLUGS CAN ONLY BE USED FOR TWO-WAY SHUT-OFFS AND MUST BE USED WITH THE SV-SERIES JIFFY-MATIC SOCKETS.

SV-Series Jiffy-Matic Connectors

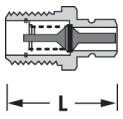
SV-Series Jiffy-Matic Male Plugs* – JS
(Automatic Shut-Off Type with Stemmed Valve)



SOCKET



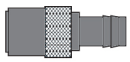
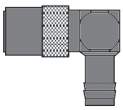
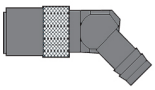
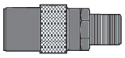
PLUG

DESCRIPTION	LENGTH L	PIPE THREAD	Ø HOLE	HEX SIZE	ITEM NUMBER	USED WITH SOCKETS*
	1-5/32	1/4 NPT	1/4	9/16	JP-252-SV	JS-204-SV TO JS-226-SV
	1-3/16	3/8 NPT	1/4	11/16	JP-253-SV	
	1-25/64	1/4 NPT	3/8	9/16	JP-352-SV**	JS-306-SV TO JS-328-SV
	1-25/64	3/8 NPT	3/8	11/16	JP-353-SV	
(BRASS)	1-37/64	1/2 NPT	3/8	7/8	JP-354-SV	

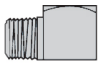
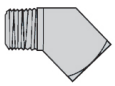
**The SV-Series Jiffy-Matic Male Plugs operate only with the SV-Series Jiffy-Matic Sockets. All SV-Series Jiffy-Matic Male Plugs are supplied with Viton sealsfor use in water, air and heat transfer oil applications that do not exceed 400°F and 200 psi.

**The JP-352-SV male plug has a stepped valve-seat due to the internal space limitations of the 1/4 NPT thread. Even so, it has a greater flow rate than the JP-252-SV male plug, which also has the 1/4 NPT thread.

SV-Series Jiffy-Matic Sockets – JS
(Automatic Shut-Off Type with Stemmed Valve)

DESCRIPTION	ITEM NUMBER	FITS HOSE I.D. OR PIPE THREAD	HOSE STEM I.D. OR THRU HOLE	USED WITH SV-MALE, STD MALE, FEMALE OR EXTENSION PLUGS
	JS-204-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JS-205-SV	5/16	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-206-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-306-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
STRAIGHT STEM	JS-308-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)
	JS-214-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JS-215-SV	5/16	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-216-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-316-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
90° STEM	JS-318-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)
	JS-224-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JS-225-SV	5/16	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-226-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-326-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
45° STEM	JS-328-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)
	JS-200-SV	1/8 NPT	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-300-SV	1/4 NPT	3/8	JP-(F/B) 351 TO 354 (SV)
FEMALE NPT THREAD				
	JS-201-MSV	1/8 NPT	1/4	JP-(F/B) 250 TO 253 (SV)
	JS-302-MSV	1/4 NPT	3/8	JP-(F/B) 351 TO 354 (SV)
MALE NPT THREAD				

90° and 45° NPT Elbows
(For Female and Male NPT Sockets Only)

DESCRIPTION	ITEM NUMBER	PIPE THREAD	THRU HOLE	USED WITH SOCKETS
	200-90	1/8 NPT	7/32	JS-200 (-V/SV) TO JS-201M (V/SV)
	300-90	1/4 NPT	5/16	JS-300 (-V/SV) TO JS-302M (V/SV)
90° NPT ELBOW	500-90	1/2 NPT	9/16	JS-500 (-V) TO JS-504M (-V)
	200-45	1/8 NPT	7/32	JS-200 (-V/SV) TO JS-201M (-V/SV)
	300-45	1/4 NPT	5/16	JS-300 (-V/SV) TO JS-302M (-V/SV)
45° NPT ELBOW	500-45	1/2 NPT	9/16	JS-500 (-V) TO JS-504M (-V)

These 90° and 45° NPT elbows can be used with either Jiffy-Tite or Jiffy-Matic, V or SV, female or male NPT sockets only.

Jiffy-Lok Connector Sockets



With Clampless Hose Stems for use with "Push-To-Lock" Type Hose

- For use with "Push-to-Lock" type hose only
- Saves set-up time by eliminating the need for hose clamps
- Hose stem barbs mate with "Push-to-Lock" style rubber hose
- Popular sizes for interchangeability with existing Jiffy-Tite, Jiffy-Matic and Jiffy-Matic SV Sockets
- More compact and consistently sized than competitive sockets
- Leakproof brass and stainless steel construction
- Replaceable seals and valves for long service

Jiffy-Lok SV-Series Valve Style* – JSL

DESCRIPTION	ITEM NUMBER	FITS HOSE I.D.	HOSE STEM I.D.	USED WITH: SV-MALE, STD. MALE, FEMALE OR EXTENSION PLUGS
STRAIGHT STEM	JSL0204-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JSL0206-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JSL0306-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
	JSL0308-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)
90° STEM	JSL0214-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JSL0216-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JSL0316-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
	JSL0318-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)
45° STEM	JSL0224-SV	1/4	3/16	JP-(F/B) 250 TO 253 (SV)
	JSL0226-SV	3/8	1/4	JP-(F/B) 250 TO 253 (SV)
	JSL0326-SV	3/8	1/4	JP-(F/B) 351 TO 354 (SV)
	JSL0328-SV	1/2	3/8	JP-(F/B) 351 TO 354 (SV)

Jiffy-Lok Flow-Thru Style (Jiffy-

DESCRIPTION	ITEM NUMBER	FITS HOSE I.D.	HOSE STEM I.D.	USED WITH: STD. MALE, FEMALE OR EXTENSION PLUGS
STRAIGHT STEM	JSL0204	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0206	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0306	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0308	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0504	1/2	3/8	JP-(F) 553 TO 556
	JSL0506	3/4	5/8	JP-(F) 553 TO 556
90° STEM	JSL0214	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0216	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0316	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0318	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0514	1/2	3/8	JP-(F) 553 TO 556
	JSL0516	3/4	5/8	JP-(F) 553 TO 556
45° STEM	JSL0224	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0226	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0326	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0328	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0524	1/2	3/8	JP-(F) 553 TO 556
	JSL0526	3/4	5/8	JP-(F) 553 TO 556

Jiffy-Lok One-Way Valve Style (Jiffy-Matic)

DESCRIPTION	ITEM NUMBER	FITS HOSE I.D.	HOSE STEM I.D.	USED WITH: STD. MALE, FEMALE OR EXTENSION PLUGS
STRAIGHT STEM	JSL0204-V	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0206-V	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0306-V	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0308-V	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0504-V	1/2	3/8	JP-(F) 553 TO 556
	JSL0506-V	3/4	5/8	JP-(F) 553 TO 556
90° STEM	JSL0214-V	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0216-V	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0316-V	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0318-V	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0514-V	1/2	3/8	JP-(F) 553 TO 556
	JSL0516-V	3/4	5/8	JP-(F) 553 TO 556
45° STEM	JSL0224-V	1/4	3/16	JP-(F/B) 250 TO 253
	JSL0226-V	3/8	1/4	JP-(F/B) 250 TO 253
	JSL0326-V	3/8	1/4	JP-(F/B) 351 TO 354
	JSL0328-V	1/2	3/8	JP-(F/B) 351 TO 354
	JSL0524-V	1/2	3/8	JP-(F) 553 TO 556
	JSL0526-V	3/4	5/8	JP-(F) 553 TO 556

NOTE: Use "Push-to-Lock" type hose only. Jiffy-Lok Connector Sockets are for use with water and water-based coolants only. Although Jiffy-Lok Connector Sockets are suitable for temperatures to 400°F, observe the temperature ratings of your "push-to-lock" hose. Most "push-to-lock" hose has a temperature rating of 175°F or less. Never exceed 200 psi.

*SV-SERIES MALE PLUGS MUST BE USED TO OBTAIN TWO-WAY SHUTOFF. INSTALLATION DATA AVAILABLE. CONTACT US.

Jiffy-Tite Connector Seals
Seal Removal Kit & Wrenches

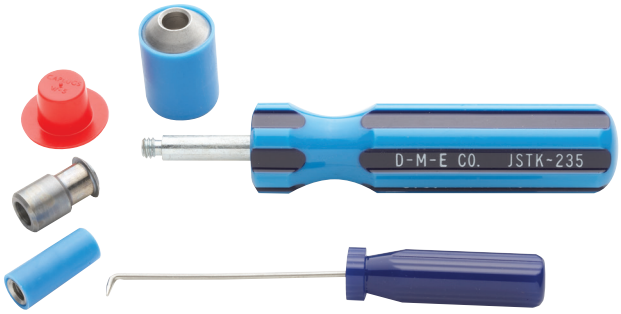
Jiffy-Tite® Connector Seals

For Replacement in Either Jiffy-Tite or Jiffy-Matic Sockets

Jiffy-Tite and Jiffy-Matic Sockets are supplied with Viton seals for use with air, water or heat transfer oil applications that do not exceed 400°F and 200 psi. Seals should be replaced periodically as required to ensure leak-free

MAXIMUM OPERATING TEMPERATURE/PRESSURE = 400°F/200 PSI			
FOR USE WITH	SEAL MATERIAL (I.D. COLOR)	ITEM NUMBER*	USED WITH SOCKETS
AIR, WATER OR HEAT TRANSFER OIL	VITON (GREEN)	P200-8	JS-204-(V/SV) TO 226-(V/SV)
		P300-8	JS-306-(V/SV) TO 328-(V/SV)
		P500-8	JS-504-(V) TO 526-(V)

*PACKS OF 10 (SOLD IN PACKS OF 10 ONLY).



INCLUDES HANDLE, INTERCHANGEABLE TOOLS FOR ALL SOCKET SIZES, SEAL PICK AND VINYL STORAGE POUCH.

Jiffy-Tite® Seal Removal Tool Kit – JSTK

The Jiffy-Tite Seal Removal Tool Kit can be used for removal
of connector seals from Jiffy-Matic Sockets (including SV Series). Can also be used with Jiffy-Tite Sockets to

ITEM NUMBER
JSTK-235

Note: This tool kit is not required for "the original" or current line of Jiffy-Matic Sockets with removable hose stems.

Jiffy-Tite® Wrenches – SJP

For Jiffy-Tite Male, Female and Extension Plugs and Jiffy-Matic SV Series Male Plugs

Jiffy-Tite wrenches are accurately made from selected alloy steel, heat-treated and chrome-plated. They are specially designed for servicing flush-mounted plugs.



JIFFY-TITE WRENCHES FOR MALE AND EXTENSION PLUGS			
HEX SIZE	SQUARE DRIVE	ITEM NUMBER	FITS PLUGS
7/16	3/8	SJP-251	JP(B)-250, 251
9/16	3/8	SJP-252	JP(B)-252(SV) JP(B)-351, 352(SV)
11/16	3/8	SJP-253	JP(B)-253(SV) JP(B)-353(SV)
7/8	3/8	SJP-354	JP-354(SV)
7/8	1/2	SJP-554	JP-553, 554
11/8	1/2	SJP-556	JP-556

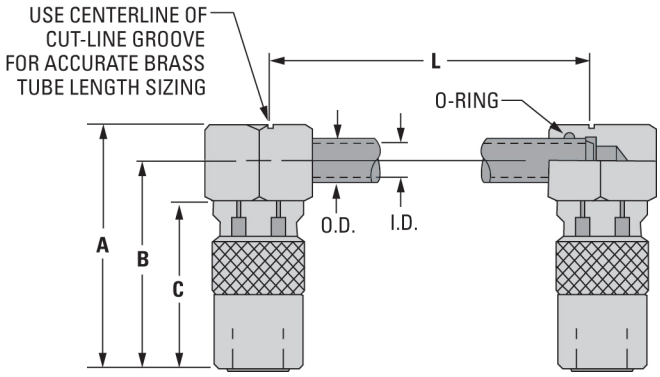
JIFFY-TITE WRENCHES FOR FEMALE PLUGS			
	SQUARE DRIVE	ITEM NUMBER	FITS PLUGS
1/2	3/8	SJP-251F	JPF-0250, 0251
5/8	3/8	SJP-252F	JPF-0252 JPF-0351, 0352
3/4	3/8	SJP-253F	JPF-0253 JPF-0353
15/16	1/2	SJP-554F	JPF-0354 JPF-0553, 0554
11/8	1/2	SJP-556F	JPF-0556

Jitty-Tite & Jiffy-Matic Coolant Bridges

For Compact Die Connection of Adjacent Plugs without Use of Conventional Hose Loop

- Provides more compact port-to-port connections than conventional hose methods
- Coolant Bridge socket adapters allow quick connections to Jiffy-Tite (flow thru) or Jiffy-Matic (one- or two-way shutoff) plugs
- Socket adapter marked with cut-line groove for quick sizing of brass tube length
- Leakproof socket adapters have replaceable





NOTES:

1. Coolant Bridge consists of two socket adapters (including O-rings) and one chamfered brass tube.
2. Coolant Bridge socket adapters and tubes to be ordered separately.
3. Tubes are 18" long. Cut to suit for specific application using cut-line grooves. Then, chamfer and deburr tube as indicated in installation data.
4. Coolant Bridge Jiffy-Matic socket adapters will provide one-way shutoff when used with standard male, female and extension plugs and two-way shutoff when used with SV-Series Male Plugs.
5. Maximum temperature rating is 400°F. Maximum PSI rating is 200.

Jiffy-Tite® and Jiffy-Matic® Coolant Bridges – JCB, JBT

COOLANT BRIDGE SOCKET ADAPTERS (TWO REQUIRED PER ASSEMBLY)							BRASS TUBE 18" LONG		
STYLE	ITEM NUMBER	A	B	C	L	USED WITH STD. MALE, FEMALE OR EXTENSION PLUGS	ITEM NUMBER	I.D.	O.D.
JIFFY-TITE FLOW-THRU	JCB0200	1.74	1.47	1.20	18" MAX.	JP(F/B)-250 TO 253	JBT0450	.214	.312
	JCB0300	2.26	1.94	1.63	18" MAX.	JP(F/B)-351 TO 354	JBT0570	.307	.437

*SV-Series male plugs must be used to obtain two-way shutoff.

REPLACEMENT O-RINGS FOR SOCKET ADAPTERS		
ITEM NUMBER	DESCRIPTION	BAG
JCB0011	VITON O-RING FOR 200 SERIES SOCKET ADAPTER	10/PKG.

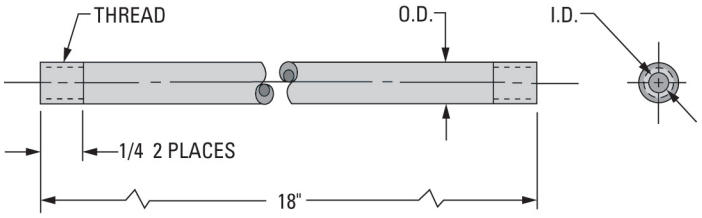
Installation data available. Contact us.

Bubbler Tubes & Brass Diverting Plugs & Rods

Bubbler Tubes



Available in brass or 304 stainless steelBubbler Tubes are used for cooling cores in dies. They are supplied threaded at both ends, thus permitting two threaded tubes
to be cut from the 18" length supplied. They can be used as replacement tubes in Cascade Water Junctions.



BRASS BUBBLER TUBES – BT

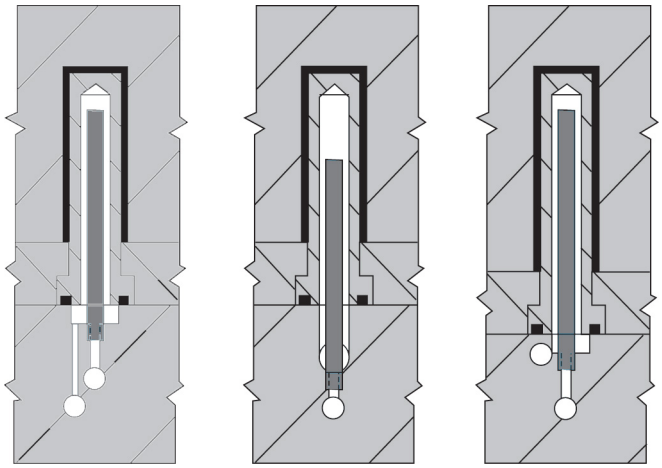
ITEM NUMBER	O.D.	I.D.	THREAD	Ø CHANNEL
BT-105	.125 +.000 -.004	.069	NO. 5-44	.144
BT-210	.190 +.000 -.004	.126	NO. 10-32	.228
BT-340	.250 +.000 -.005	.170	1/4-28	.302
BT-450	.312 +.000 -.006	.214	5/16-24	.377
BT-570	.437 +.000 -.006	.307	7/16-20	.531

304 STAINLESS STEEL BUBBLER TUBES – BTS

ITEM NUMBER	O.D.	I.D.	THREAD	Ø CHANNEL
BTS-100	.093 +.000 -.004	.078	NONE*	.120
BTS-105	.125 +.000 -.004	.069	NO. 5-44	.144
BTS-210	.190 +.000 -.004	.126	NO. 10-32	.228
BTS-340	.250 +.000 -.005	.170	1/4-28	.302
BTS-450	.312 +.000 -.006	.214	5/16-24	.377
BTS-570	.437 +.000 -.006	.307	7/16-20	.531

*PRESS FIT

TYPICAL APPLICATIONS



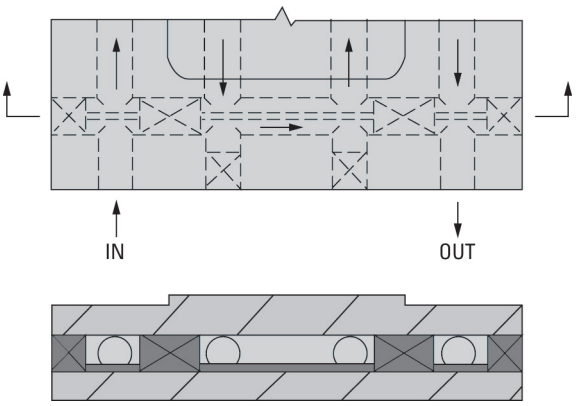
Brass Diverting Plugs and Rod for Steam and Waterlines



Brass Diverting Plugs and Rods are used to redirect water flow through waterlines drilled in a mold or die.

The plugs are pushed into the waterline, and the rods are cut to appropriate lengths to serve as spacers or stops between the plugs. All plugs are proportionately longer than their diameter to ensure that they will pass by intersecting waterlines without twisting into them.

TYPICAL APPLICATION





BRASS DIVERTING PLUGS – BF

ITEM NUMBER	DIA ±.002	LENGTH
BF-50	5/16	.62
BF-70	7/16	.62
BF-90	9/16	.75
BF-110	11/16	.87
BF-150	15/16	1.25

BRASS ROD – BFR
(1/8 DIA. X 18" LONG)

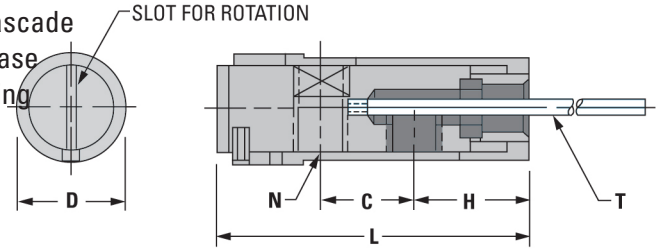
ITEM NUMBER
BFR-18

Jiffy-Tite Cascade Junctions

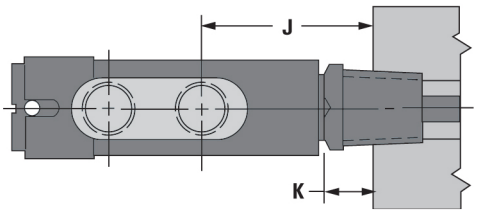
- Compact design
- 360° seal – leak proof
- Accurate predetermination of port locations
- Easy “one-piece” installation and removal



For cascade-type cooling applications, the Jiffy-Tite Cascade Water Junctions provide the utmost in versatility and ease of use. Their compact design makes them ideal for cooling inserted cores or spot cooling in hard to reach areas. They can be rotated a full 360° without affecting their positive Jiffy-Tite seal and are easily connected and disconnected – even when installed internally.



Final location of the ports on the body of the Water Junction can be accurately predetermined, thus ensuring proper lateral alignment with pipe clearance holes. Waterlines may be connected to the same side or opposing sides of the Water Junction. A slot on the end of the Water Junction body indicates port position and can be turned with a screwdriver to align the ports with pipe clearance holes.



The brass tube has the rigidity to maintain uniform spacing

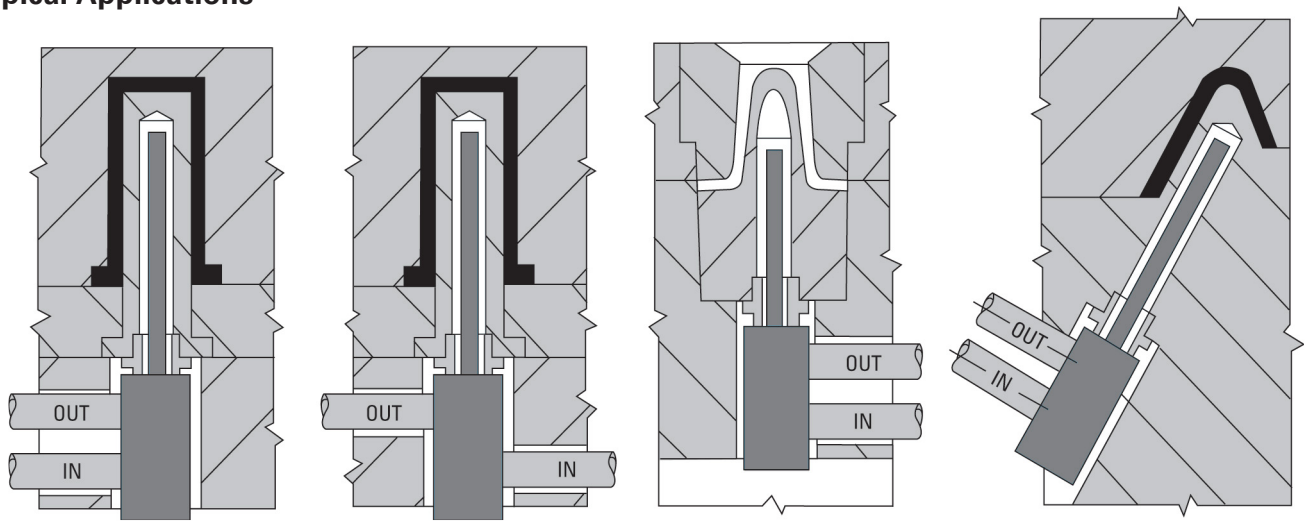
Jiffy-Tite® Cascade Water Junctions (JW)

ITEM NUMBER	D	L	C	H	N N.P.T. (3 PLACES)	T 18" LONG TUBE SUPPLIED		
						O.D.	I.D.	THREAD
JW-220	.70	2.12	.69	.77	1/8	.190	.126	NO. 10-32
JW-320	.96	2.38	.69	1.03	1/8	.250	.170	1/4-28
JW-321	.96	2.69	1.00	1.03	1/8	.250	.170	1/4-28

NOTES:
1. Bubbler Tubes may be used as replacements in Water Junctions above.
2. The 200, 300 and 500 Series Water Junctions are equipped with 200, 300 and 500 series Viton seals respectively, rated at 200 psi and suitable for temperatures up to 400°F.

REFERENCE DIMENSIONS FOR PORT LOCATION			
WATER JUNCTION ITEM NO	MATING JIFFY-TITE PLUG	J	K
JW-220	JP-251	.99	.21
	JP-252	1.24	.46
	JP-253	1.28	.50
JW-320 AND JW-321	JP-352	1.48	.42
	JP-353	1.51	.45
	JP-354	1.63	.56
JW-541	JP-554	1.96	.66
	JP-556	2.02	.72

Typical Applications



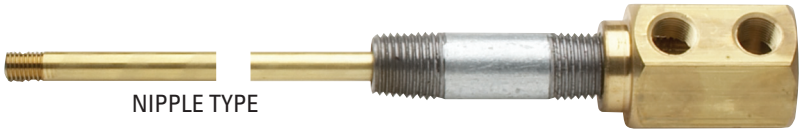
Cascade Water Junctions

Cascade Water Junctions are ideal for cooling die-cast dies where drilled waterlines through the block are not possible due to interference with ejector pins, sprue puller pins, etc.

The brass tube has the rigidity to maintain uniform spacing inside the water channel and is threaded into the body for firm support. Waterlines may be connected to the same side or opposing sides of the brass hexagonal body.

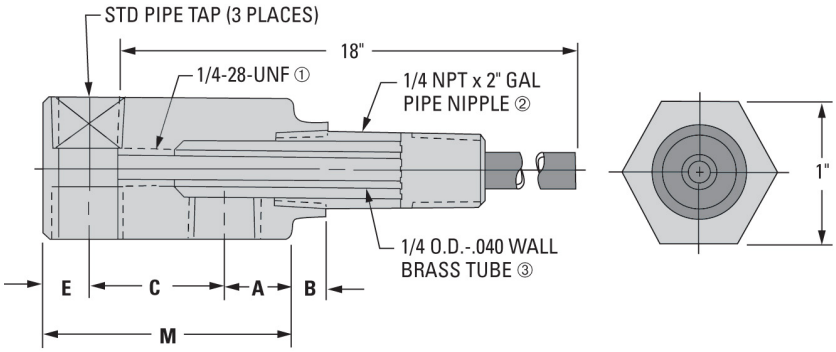
The Nipple Type Water Junction provides low-cost rigid installation. The 2" long pipe nipple can be replaced with a longer pipe nipple to suit the application.

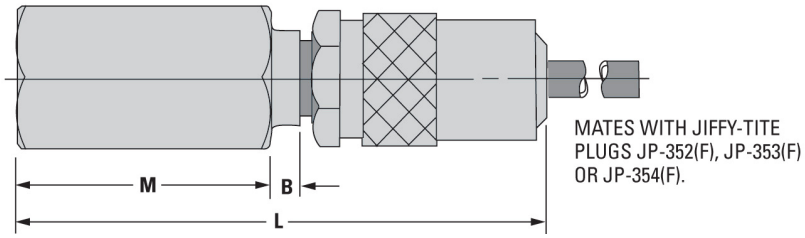
The Jiffy-Tite Socket Type is more easily connected and disconnected when die is set-up, transported or stored. The socket is equipped with internal Viton seals (P300-8).



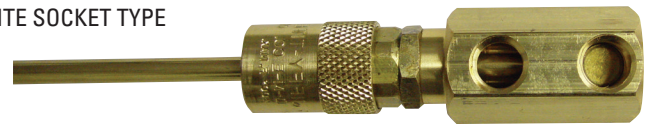
NIPPLE TYPE

Nipple Type – DC (Includes pipe nipple and brass bubbler tube)





JIFFY-TITE SOCKET TYPE

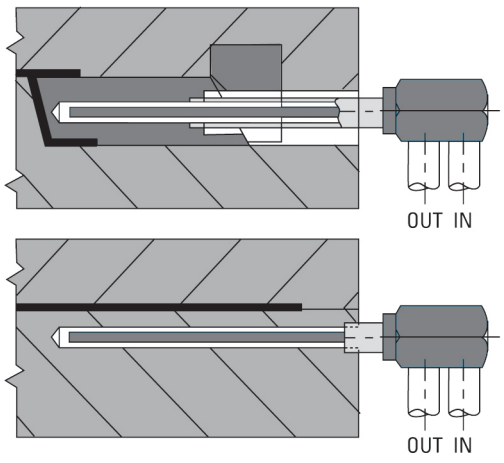


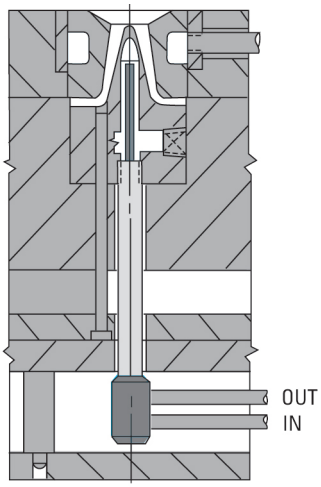
Cascade Water Junctions-DC

NIPPLE TYPE ITEM NUMBER	STD. PIPE TAP (3 PLACES)	M	E	A	B	C	L	JIFFY-TITE SOCKET TYPE ITEM NUMBER
DC-131	1/8	1.34	.33	.33	.22	.69	—	—
DC-131-A	1/4	1.34	.33	.33	.22	.69	3.29	JSC-304
DC-132	1/8	1.84	.34	.50	.25	1.00	—	—
DC-132-A	1/4	1.84	.34	.50	.25	1.00	3.82	JSC-314
DC-136-A*	1/4	1.84	.34	.50	.25	1.00	—	—

*SPECIFICATIONS for DC-136-A (see drawing above): ① 1 5/16-24 UNF ② 2 3/8 NPT x 2" ③ 3 5/16 O.D. - .040 WALL

Typical Applications





Straight Brass Plug Baffles

Brass Plug Baffles, available in both straight and spiral styles, are constructed entirely of high-quality brass with blades brazed to the plugs for long, dependable service. They provide a high-pressure seal through a deliberate difference of taper between the plug and the tapped hole.

The function of the baffle is to split the drilled waterline into two equal channels. As the heating or cooling medium enters, the baffle diverts the flow to travel up to and over the end of the baffle and down the other side.

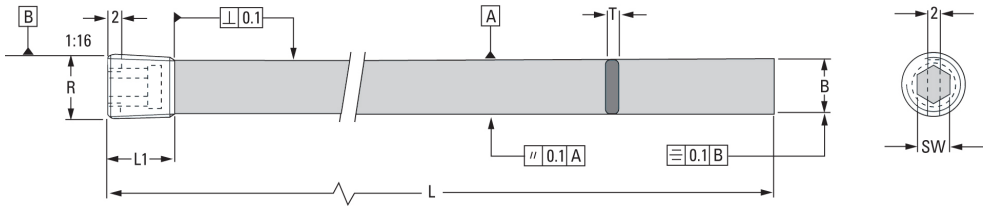
Clearance must be provided between the end of the baffle and the end of the drilled channel to provide adequate flow. See Dimension "C" for approximate

STRAIGHT BAFFLES



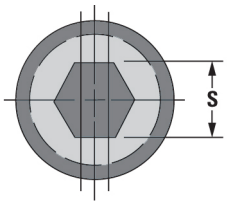
THREAD SIZE

THREAD LENGTHS	
NOMINAL PLUG SIZE	THREAD+.000 LENGTH -.015
1/16 & 1/8	.250
1/4 & 3/8	.406
1/2 & 3/4	.531
1"	.656



NOTE: A drilled hole (finish dH13) is adequate. Don't ream the hole.

HEX SIZE

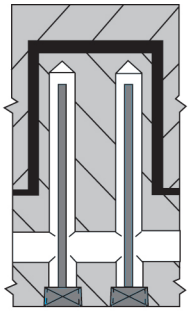


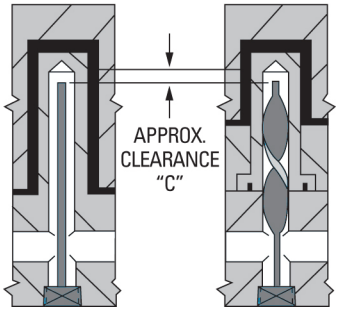
Slot indicates Baffle Position

Straight Brass Plug Baffles (Inch) – BB

ITEM NUMBER	NOMINAL PLUG SIZE	HEX SIZES	NOMINAL LENGTH OVERALL	BAFFLE THICKNESS	BAFFLE WIDTH -.005 -.015	DRILL SIZE	C
BB-05-4	1/16	5/32	4"	.050	1/4	1/4	.10
BB-05-8	1/16	5/32	8"	.050	1/4	1/4	.10
BB-10-4	1/8	3/16	4"	1/16	5/16	5/16	.12
BB-10-8	1/8	3/16	8"	1/16	5/16	5/16	.12
BB-20-5	1/4	1/4	5"	3/32	7/16	7/16	.17
BB-20-10	1/4	1/4	10"	3/32	7/16	7/16	.17
BB-40-6	3/8	5/16	6"	3/32	9/16	9/16	.21
BB-40-12	3/8	5/16	12"	3/32	9/16	9/16	.21
BB-60-8	1/2	3/8	8"	3/32	11/16	11/16	.26
BB-60-16	1/2	3/8	16"	3/32	11/16	11/16	.26
BB-100-12	3/4	9/16	12"	1/8	15/16	15/16	.35
BB-100-20	3/4	9/16	20"	1/8	15/16	15/16	.35
BB-140-16	1	5/8	16"	1/8	11/8	11/8	.42

Typical Applications





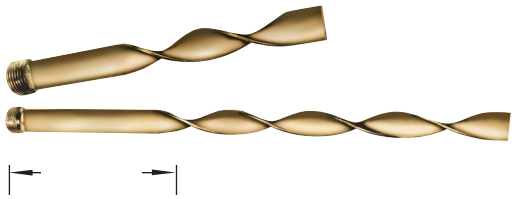
Straight Brass Plug Baffles (Metric) – BB

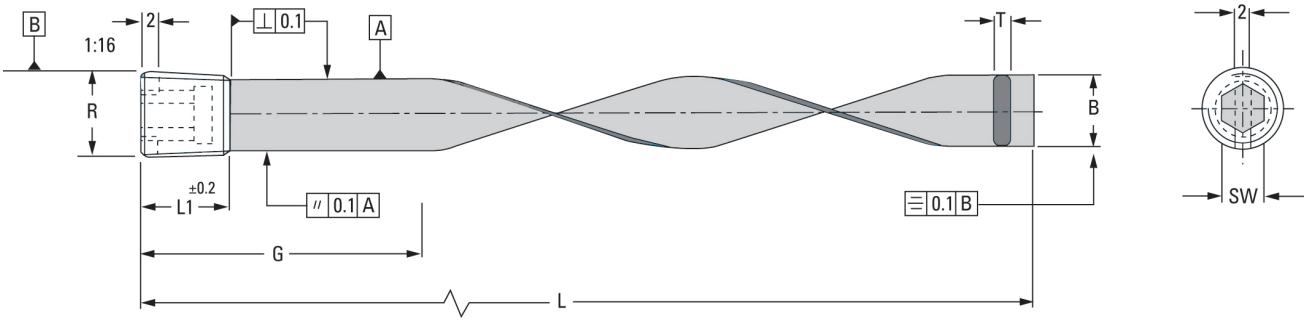
ITEM NUMBER	R	SW	B	L	L1	T	D
BB-100-18	1/8" BSP	5	8.2	100	8	2.0	8.5
BB-200-18	1/8" BSP	5	8.2	200	8	2.0	8.5
BB-125-14	1/4" BSP	6	11.2	125	10	2.5	11.5
BB-250-14	1/4" BSP	6	11.2	250	10	2.5	11.5
BB-150-38	3/8" BSP	8	14.7	150	10	2.5	15.0
BB-300-38	3/8" BSP	8	14.7	300	10	2.5	15.0
BB-200-12	1/2" BSP	10	18.2	200	10	2.5	18.5
BB-400-12	1/2" BSP	10	18.2	400	10	2.5	18.5
BB-300-34	3/4" BSP	12	23.2	300	12	3.0	23.5
BB-500-34	3/4" BSP	12	23.2	500	12	3.0	23.5

Spiral Brass Plug Baffles

Spiral Baffles

Spiral baffles improve cooling balance by creating turbulent action in the channel, reducing laminar or straight-layered flow patterns and providing efficient





NOTE: A drilled hole (finish d1H13) is adequate. Don't ream the hole.

Spiral Brass Plug Baffles (Inch) – BBS

ITEM NUMBER	NOMINAL PLUG SIZE	HEX SIZES	NOMINAL LENGTH OVERALL	STRAIGHT LENGTH	BAFFLE THICKNESS	BAFFLE WIDTH -.005 -.015	DRILL SIZE	C
BBS-05-04	1/16	5/32	4"	2"	.050	1/4	1/4	.10
BBS-05-08	1/16	5/32	8"	4"	.050	1/4	1/4	.10
BBS-10-04	1/8	3/16	4"	2"	1/16	5/16	5/16	.12
BBS-10-08	1/8	3/16	8"	4"	1/16	5/16	5/16	.12
BBS-20-05	1/4	1/4	5"	2"	3/32	7/16	7/16	.17
BBS-20-10	1/4	1/4	10"	4"	3/32	7/16	7/16	.17
BBS-40-06	3/8	5/16	6"	2"	3/32	9/16	9/16	.21
BBS-40-12	3/8	5/16	12"	4"	3/32	9/16	9/16	.21
BBS-60-08	1/2	3/8	8"	3"	3/32	11/16	11/16	.26
BBS-60-16	1/2	3/8	16"	5"	3/32	11/16	11/16	.26
BBS-100-12	3/4	9/16	117/8	4"	1/8	15/16	15/16	.35
BBS-100-20	3/4	9/16	197/8	6"	1/8	15/16	15/16	.35

Spiral Brass Plug Baffles (Metric) – BBS

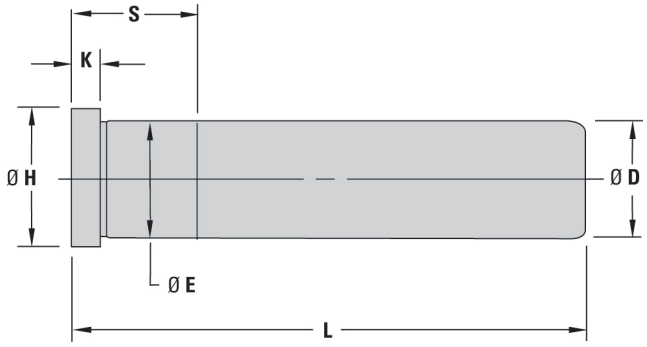
ITEM NUMBER	R	G	SW	B	L	L1	T	D1
BBS-100-116	1/16"	51	4	6.5	101	8	1.6	6.8
BBS-200-116	1/16"	102	4	6.5	203	8	1.6	6.8
BBS-100-18	1/8"	51	5	8.5	101	8	1.6	8.8
BBS-200-18	1/8"	102	5	8.5	203	8	1.6	8.8
BBS-125-14	1/4"	51	7	11.5	127	10	2.4	11.8
BBS-250-14	1/4"	102	7	11.5	254	10	2.4	11.8
BBS-150-38	3/8"	51	8	15.0	152	10	2.4	15.3
BBS-300-38	3/8"	102	8	15.0	305	10	2.4	15.3
BBS-200-12	1/2"	76	10	18.5	203	10	2.4	18.8
BBS-400-12	1/2"	127	10	18.5	406	10	2.4	18.8
BBS-300-34	3/4"	102	12	23.5	305	12	3.2	23.8
BBS-500-34	3/4"	153	12	23.5	508	12	3.2	23.8
BBS-400-1	1"	127	12	28.5	406	12	3.2	28.8
BBS-600-1	1"	203	12	28.5	610	12	3.2	28.8

Guide Pins

Guide Pins – GL

Hardened and Precision Ground





General Dimensions

	Ø D +.0000 -.0005	Ø H +.000 -.030	K	Ø E +.0005 -.0000
3/4	.749	.990	3/16	.751
7/8	.874	1.115	1/4	.876
1"	.999	1.240	1/4	1.001
1-1/4	1.249	1.490	5/16	1.251
1-1/2	1.499	1.740	5/16	1.501

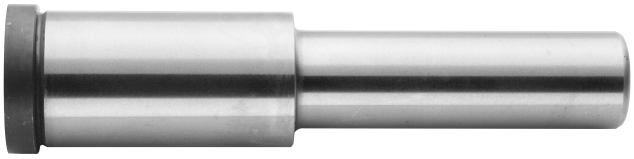
L LENGTH +.00 -.06	Ø D = 3/4 DIA .749 +.0000 -.0005		Ø D = 7/8 DIA .874 +.0000 -.0005		Ø D = 1" DIA .999 +.0000 -.0005		Ø D = 11/4 DIA 1.249 +.0000 -.0005		Ø D = 11/2 DIA 1.499 +.0000 -.0005		L LENGTH +.00 -.06
	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER	
1-3/4	7/8	5000-GL	7/8	5099-GL	7/8	5198-GL	—	—	—	—	1-3/4
2-1/4	7/8	5001-GL	7/8	5100-GL	7/8	5199-GL	—	—	—	—	2-1/4
2-3/4	7/8	5002-GL	7/8	5101-GL	7/8	5200-GL	7/8	5300-GL	—	—	2-3/4
3-1/4	7/8	5003-GL	7/8	5102-GL	7/8	5201-GL	7/8	5301-GL	—	—	3-1/4
3-3/4	7/8	5004-GL	7/8	5103-GL	7/8	5202-GL	7/8	5302-GL	1-3/8	5402-GL	3-3/4
4-1/4	1-3/8	5005-GL	13/8	5104-GL	1-3/8	5203-GL	7/8	5303-GL	1-3/8	5403-GL	4-1/4
4-3/4	1-3/8	5006-GL	13/8	5105-GL	1-3/8	5204-GL	1-3/8	5304-GL	1-3/8	5404-GL	4-3/4
5-1/4	1-3/8	5007-GL	13/8	5106-GL	1-3/8	5205-GL	1-3/8	5305-GL	1-3/8	5405-GL	5-1/4
5-3/4	1-7/8	5008-GL	13/8	5107-GL	1-3/8	5206-GL	1-3/8	5306-GL	1-3/8	5406-GL	5-3/4
6-1/4	1-7/8	5009-GL	17/8	5108-GL	1-3/8	5207-GL	1-3/8	5307-GL	1-3/8	5407-GL	6-1/4
6-3/4	1-7/8	5010-GL	17/8	5109-GL	1-7/8	5208-GL	1-7/8	5308-GL	1-3/8	5408-GL	6-3/4
7-1/4	1-7/8	5011-GL	17/8	5110-GL	1-7/8	5209-GL	1-7/8	5309-GL	—	—	7-1/4
7-3/4	1-7/8	5012-GL	17/8	5111-GL	1-7/8	5210-GL	1-7/8	5310-GL	1-7/8	5410-GL	7-3/4
8-1/4	—	—	17/8	5112-GL	1-7/8	5211-GL	1-7/8	5311-GL	—	—	8-1/4
8-3/4	—	—	17/8	5113-GL	1-7/8	5212-GL	1-7/8	5312-GL	1-7/8	5412-GL	8-3/4
9-1/4	1-7/8	5015-GL	—	—	1-7/8	5213-GL	1-7/8	5313-GL	—	—	9-1/4
9-3/4	—	—	—	—	1-7/8	5214-GL	1-7/8	5314-GL	1-7/8	5414-GL	9-3/4
10-1/4	—	—	—	—	1-7/8	5215-GL	1-7/8	5315-GL	—	—	10-1/4
10-3/4	—	—	17/8	5117-GL	1-7/8	5216-GL	1-7/8	5316-GL	1-7/8	5416-GL	10-3/4
11-1/4	—	—	—	—	1-7/8	5217-GL	1-7/8	5317-GL	—	—	11-1/4
11-3/4	—	—	—	—	1-7/8	5218-GL	1-7/8	5318-GL	1-7/8	5418-GL	11-3/4
12-1/4	—	—	17/8	5120-GL	1-7/8	5219-GL	1-7/8	5319-GL	—	—	12-1/4
12-3/4	—	—	—	—	—	—	1-7/8	5320-GL	1-7/8	5420-GL	12-3/4
13-3/4	—	—	—	—	—	—	1-7/8	5322-GL	1-7/8	5422-GL	13-3/4
14-3/4	—	—	—	—	—	—	1-7/8	5324-GL	1-7/8	5424-GL	14-3/4
15-3/4	—	—	—	—	—	—	1-7/8	5326-GL	1-7/8	5426-GL	15-3/4

NOTE: Grooved guide pins also available on special order.

All items in stock.

Shoulder Guide Pins-Hardened & Precision Ground

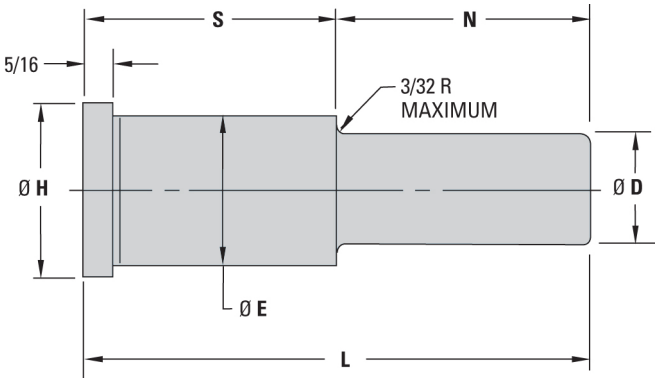
Shoulder Guide Pins – A-GL, C-GL, D-GL



Hardened and Precision Ground

Standard Shoulder Pins are precision made of high-quality steel and are hardened and finished ground to close tolerances. This combination enables diemakers to line-bore the guide pin and bushing hole.

General Dimensions



NOMINAL DIA	Ø D +.0000 -.0005	Ø E +.0005 -.0000	Ø H +.000 -.010
3/4	.749	1.126	1.228
1"	.999	1.376	1.510
1-1/4	1.249	1.626	1.791

S +.00 -.03	N +.00 -.03	L +.00 -.06	Ø D = 3/4 DIA ITEM NUMBER	Ø D = 1" DIA ITEM NUMBER	Ø D = 11/4 DIA ITEM NUMBER
7/8	7/8	1-3/4	A-0707-GL	—	—
	13/8	2-1/4	A-0713-GL	C-0713-GL	—
	1-7/8	2-3/4	A-0717-GL	C-0717-GL	—
	2-3/8	3-1/4	A-0723-GL	—	—
	2-7/8	3-3/4	A-0727-GL	C-0727-GL	—
13/8	7/8	2-1/4	A-1307-GL	C-1307-GL	—
	1-3/8	2-3/4	A-1313-GL	C-1313-GL	D-1313-GL
	1-7/8	3-1/4	A-1317-GL	C-1317-GL	—
	2-3/8	3-3/4	A-1323-GL	C-1323-GL	D-1323-GL
	2-7/8	4-1/4	A-1327-GL	C-1327-GL	—
	3-3/8	4-3/4	A-1333-GL	C-1333-GL	D-1333-GL
17/8	7/8	2-3/4	A-1707-GL	C-1707-GL	—
	1-3/8	3-1/4	A-1713-GL	C-1713-GL	D-1713-GL
	1-7/8	3-3/4	A-1717-GL	C-1717-GL	D-1717-GL
	2-3/8	4-1/4	A-1723-GL	C-1723-GL	D-1723-GL
	2-7/8	4-3/4	A-1727-GL	C-1727-GL	D-1727-GL
	3-3/8	5-1/4	A-1733-GL	C-1733-GL	D-1733-GL
	3-7/8	5-3/4	A-1737-GL	C-1737-GL	D-1737-GL
23/8	7/8	3-1/4	A-2307-GL	—	—
	1-3/8	3-3/4	A-2313-GL	C-2313-GL	D-2313-GL
	1-7/8	4-1/4	A-2317-GL	C-2317-GL	D-2317-GL
	2-3/8	4-3/4	A-2323-GL	C-2323-GL	D-2323-GL
	2-7/8	5-1/4	A-2327-GL	C-2327-GL	D-2327-GL
	3-3/8	5-3/4	—	C-2333-GL	D-2333-GL
	3-7/8	6-1/4	A-2337-GL	C-2337-GL	D-2337-GL

S +.00 -.03	N +.00 -.03	L +.00 -.06	Ø D = 3/4 DIA ITEM NUMBER	Ø D = 1" DIA ITEM NUMBER	Ø D = 11/4 DIA ITEM NUMBER
27/8	1-3/8	4-1/4	A-2713-GL	C-2713-GL	—
	1-7/8	4-3/4	A-2717-GL	C-2717-GL	D-2717-GL
	2-3/8	5-1/4	A-2723-GL	C-2723-GL	D-2723-GL
	2-7/8	5-3/4	A-2727-GL	C-2727-GL	D-2727-GL
	3-3/8	6-1/4	—	C-2733-GL	D-2733-GL
	3-7/8	6-3/4	A-2737-GL	C-2737-GL	D-2737-GL
	4-3/8	7-1/4	—	C-2743-GL	D-2743-GL
33/8	1-7/8	5-1/4	A-3317-GL	C-3317-GL	D-3317-GL
	2-3/8	5-3/4	A-3323-GL	C-3323-GL	D-3323-GL
	2-7/8	6-1/4	—	C-3327-GL	D-3327-GL
	3-3/8	6-3/4	A-3333-GL	C-3333-GL	D-3333-GL
	4-3/8	7-3/4	—	C-3343-GL	D-3343-GL
37/8	2-3/8	6-1/4	A-3723-GL	C-3723-GL	D-3723-GL
	2-7/8	6-3/4	A-3727-GL	C-3727-GL	D-3727-GL
	3-3/8	7-1/4	—	—	D-3733-GL
	3-7/8	7-3/4	—	C-3737-GL	D-3737-GL
	4-7/8	8-3/4	—	C-3747-GL	D-3747-GL
43/8	2-7/8	7-1/4	—	C-4327-GL	D-4327-GL
	3-3/8	7-3/4	—	—	D-4333-GL
	3-7/8	8-1/4	—	C-4337-GL	D-4337-GL
	4-3/8	8-3/4	—	C-4343-GL	—
	4-7/8	9-1/4	—	—	D-4347-GL
47/8	3-7/8	8-3/4	—	C-4737-GL	D-4737-GL
	4-3/8	9-1/4	—	C-4743-GL	D-4743-GL
	4-7/8	9-3/4	—	C-4747-GL	D-4747-GL
	5-7/8	10-3/4	—	—	D-4757-GL
57/8	3-7/8	9-3/4	—	C-5737-GL	D-5737-GL
	4-3/8	10-1/4	—	—	D-5743-GL
	4-7/8	10-3/4	—	C-5747-GL	D-5747-GL
	5-7/8	11-3/4	—	C-5757-GL	D-5757-GL

NOTE: Grooved guide pins also available on special order.

All items in stock.

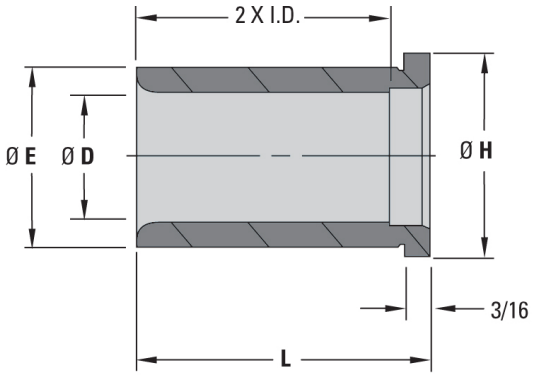
Shoulder Bushings & Straight Bushings
Hardened and Precision Ground

Shoulder Bushings

General Dimensions

NOMINAL I.D.	Ø D +.0005 -.0000	Ø E +.0005 -.0000	Ø H +.000 -.030
3/4	.7505	1.1255	1.302
7/8	.8755	1.2505	1.427
1"	1.0005	1.3755	1.552
1-1/4	1.2505	1.6255	1.802
1-1/2	1.5005	2.0005	2.177





Surface Treatment: Case-hardened .030 to .040 deep

L LENGTH +.00 -.06	Ø D = 3/4 DIA .7505 +.0005 -.0000	Ø D = 7/8 DIA .8755 +.0005 -.0000	Ø D = 1" DIA 1.0005 +.0005 -.0000	Ø D = 11/4 DIA 1.2505 +.0005 -.0000	Ø D = 11/2 DIA 1.5005 +.0005 -.0000	L LENGTH +.00 -.06
	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	
7/8	5700	5710	5730	5750	5770	7/8
1-3/8	5701	5711	5731	5751	5771	1-3/8
1-7/8	5702	5712	5732	5752	5772	1-7/8
2-3/8	5703	5713	5733	5753	5773	2-3/8
2-7/8	5704	5714	5734	5754	5774	2-7/8
3-3/8	5705	5715	5735	5755	5775	3-3/8
3-7/8	5706	5716	5736	5756	5776	3-7/8
4-3/8	5707	5717	5737	5757	5777	4-3/8
4-7/8	5708	5718	5738	5758	5778	4-7/8
57/8	5709	5720	5740	5760	5780	5-7/8

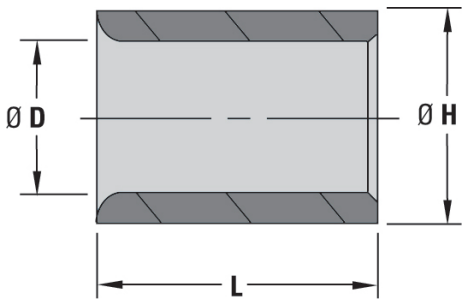
Straight Bushings

Surface Treatment: Case-hardened .030 to .040 deep

NOMINAL I.D.	Ø D +.0005 -.0000	L +.00 -.06 LENGTH	Ø H +.0005 -.0000	ITEM NUMBER
3/4	.7505	7/8	1.1255	5500
		1-3/8	1.1255	5501
7/8	.8755	1-3/8	1.2505	5502
1"	1.0005	1-3/8	1.3755	5503
1-1/4	1.2505	1-3/8	1.6255	5504
		1-7/8	1.6255	5505
1-1/2	1.5005	1-3/8	2.0005	5506
		1-7/8	2.0005	5507
2"	2.0005	3-7/8	2.5005	5508
2-1/2	2.5005	4-7/8	3.2505	5509
3"	3.0005	4-7/8	3.7505	5510

All items in stock.





Guide Pins & Shoulder Bushings
2", 2.5" and 3" Diameter

Guide Pins – GL

Designed to satisfy the requirements of larger die-cast dies.

They are made of the finest quality alloy steels and are hardened and precision ground.

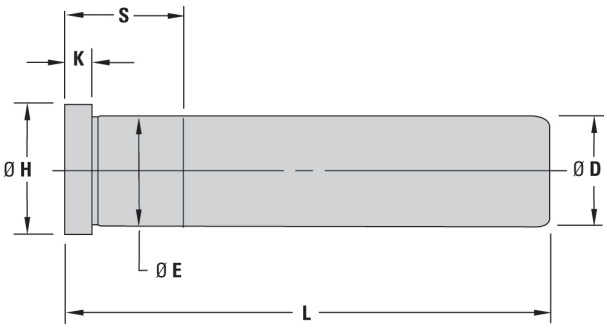


L LENGTH +.00 -.06	Ø D = 2" DIA 1.999 +.0000 -.0005		Ø D = 21/2 DIA 2.499 +.0000 -.0005		Ø D = 3" DIA 2.999 +.0000 -.0005	
	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER
5-3/4	1-7/8	5606-GL	23/8	5806-GL	—	—
6-3/4	1-7/8	5608-GL	23/8	5808-GL	—	—
7-3/4	1-7/8	5610-GL	23/8	5810-GL	—	—
8-3/4	1-7/8	5612-GL	23/8	5812-GL	27/8	6012-GL
9-3/4	1-7/8	5614-GL	23/8	5814-GL	—	—
10-3/4	1-7/8	5616-GL	23/8	5816-GL	27/8	6016-GL
11-3/4	1-7/8	5618-GL	23/8	5818-GL	—	—
12-3/4	1-7/8	5620-GL	23/8	5820-GL	27/8	6020-GL
13-3/4	1-7/8	5622-GL	23/8	5822-GL	—	—
14-3/4	1-7/8	5624-GL	23/8	5824-GL	27/8	6024-GL
15-3/4	1-7/8	5626-GL	23/8	5826-GL	—	—
16-3/4	2-3/8	5628-GL	23/8	5828-GL	27/8	6028-GL
18-3/4	2-3/8	5632-GL	23/8	5832-GL	27/8	6032-GL

NOTE: Grooved guide pins also available on special order.

GENERAL DIMENSIONS

NOMINAL DIA	Ø D +.0000 -.0005	Ø H +.000 -.030	Ø E +.0005 -.0000	K
2"	1.999	2.240	2.001	5/16
21/2	2.499	2.740	2.501	5/16
3"	2.999	3.365	3.001	1/2



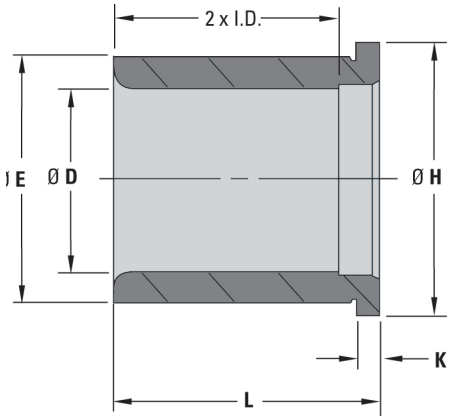


Shoulder Bushings

Made of the finest quality alloy steel. They are hardened and precision ground to reduce wear and give longer life under severe die-casting conditions. The I.D. is ground to close tolerances in order to maintain a smooth, but firm, running fit with our

GENERAL DIMENSIONS

NOMINAL I.D.	Ø D +.0005 -.0000	Ø E +.0005 -.0000	Ø H +.000 -.030	K
2"	2.0005	2.5005	2.677	3/16
21/2	2.5005	3.2505	3.427	3/16
3"	3.0005	3.7505	3.990	1/2



Surface Treatment: Case-hardened .030 to .040 deep

L LENGTH +.00 -.06	Ø D = 2" I.D. 2.0005 +.0005 -.0000	Ø D = 21/2" I.D. 2.5005 +.0005 -.0000	Ø D = 3" I.D. 3.0005 +.0005 -.0000
	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER
1-3/8	5901	5951	—
1-7/8	5902	5952	—
2-3/8	5903	5953	—
2-7/8	5904	5954	—
3-3/8	5905	5955	—
3-7/8	5906	5956	5976
4-3/8	5907	5957	—
4-7/8	5908	5958	5978
5-7/8	5910	5960	5980
7-7/8	—	—	5984

All items in stock.

Self-Lubricating Bushings for Guide Pins

Self-Lubricating Bushings can save time and money in the design, construction and operation of injection molds. They are ideal for clean-room conditions or any applications where the parts being die-cast prohibit the use of external lubricants, such as medical, electronic and food-related products. Their built-in lubrication capability also makes them a good choice



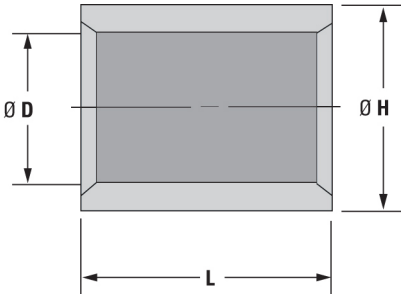
SHOULDER STYLE



STRAIGHT STYLE

Self-Lubricating Straight Bushings – GBS

NOMINAL I.D.	Ø D +.0005 -.0000	L +.00 -.06 LENGTH	Ø H +.0005 -.0000	ITEM NUMBER
3/4	.7505	7/8	1.1255	GBS-06-07
		1-3/8	1.1255	GBS-06-13
7/8	.8755	1-3/8	1.2505	GBS-07-13
1"	1.0005	1-3/8	1.3755	GBS-08-13
1-1/4	1.2505	1-3/8	1.6255	GBS-10-13
		1-7/8	1.6255	GBS-10-17
1-1/2	1.5005	1-3/8	2.0005	GBS-12-13
		1-7/8	2.0005	GBS-12-17
2"	2.0005	3-7/8	2.5005	GBS-16-37
2-1/2	2.5005	4-7/8	3.2505	GBS-20-47
3"	3.0005	4-7/8	3.7505	GBS-24-47



NOTE: These bushings are interchangeable with comparably sized DME steel or bronze-plated bushings.

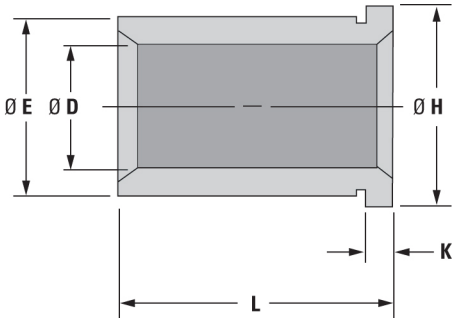
All items in stock.

- Aluminum-bronze alloy with oil-impregnated graphite plugs
- Saves design and moldmaking costs for lubrication and fittings
- Reduces wear and galling
- Lowers maintenance and repair costs
- Eliminates contamination…

Self-Lubricating Shoulder Bushings – GBF

GENERAL DIMENSIONS

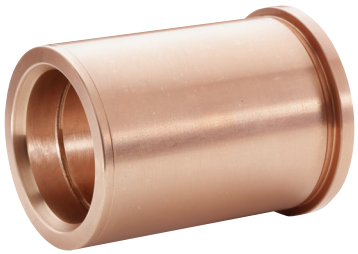
NOMINAL I.D.	Ø E +.0005 -.0000	Ø H +.000 -.030	K
3/4	1.1255	1.302	
7/8	1.2505	1.427	
1"	1.3755	1.552	
1-1/4	1.6255	1.802	3/16
1-1/2	2.0005	2.177	
2"	2.5005	2.677	
2-1/2	3.2505	3.427	
3"	3.7505	3.990	1/2



L LENGTH +.00 -.06	Ø D = 3/4 I.D. .7505 +.0005 -.0000 ITEM NUMBER	Ø D = 7/8 I.D. .8755 +.0005 -.0000 ITEM NUMBER	Ø D = 1" I.D. 1.0005 +.0005 -.0000 ITEM NUMBER	Ø D = 11/4 I.D. 1.2505 +.0005 -.0000 ITEM NUMBER	Ø D = 11/2 I.D. 1.5005 +.0005 -.0000 ITEM NUMBER	Ø D = 2" I.D. 2.0005 +.0005 -.0000 ITEM NUMBER	Ø D = 21/2 I.D. 2.5005 +.0005 -.0000 ITEM NUMBER	Ø D = 3" I.D. 3.0005 +.0005 -.0000 ITEM NUMBER	L LENGTH +.00 -.06
7/8	GBF-06-07	GBF-07-07	GBF-08-07	GBF-10-07	GBF-12-07	—	—	—	7/8
1-3/8	GBF-06-13	GBF-07-13	GBF-08-13	GBF-10-13	GBF-12-13	GBF-16-13	GBF-20-13	—	1-3/8
1-7/8	GBF-06-17	GBF-07-17	GBF-08-17	GBF-10-17	GBF-12-17	GBF-16-17	GBF-20-17	—	1-7/8
2-3/8	GBF-06-23	GBF-07-23	GBF-08-23	GBF-10-23	GBF-12-23	GBF-16-23	GBF-20-23	—	2-3/8
2-7/8	GBF-06-27	GBF-07-27	GBF-08-27	GBF-10-27	GBF-12-27	GBF-16-27	GBF-20-27	—	2-7/8
3-3/8	GBF-06-33	GBF-07-33	GBF-08-33	GBF-10-33	GBF-12-33	GBF-16-33	GBF-20-33	—	3-3/8
3-7/8	GBF-06-37	GBF-07-37	GBF-08-37	GBF-10-37	GBF-12-37	GBF-16-37	GBF-20-37	GBF-24-37	3-7/8
4-3/8	GBF-06-43	GBF-07-43	GBF-08-43	GBF-10-43	GBF-12-43	GBF-16-43	GBF-20-43	—	4-3/8
4-7/8	GBF-06-47	GBF-07-47	GBF-08-47	GBF-10-47	GBF-12-47	GBF-16-47	GBF-20-47	GBF-24-47	4-7/8
5-7/8	GBF-06-57	GBF-07-57	GBF-08-57	GBF-10-57	GBF-12-57	GBF-16-57	GBF-20-57	GBF-24-57	5-7/8
7-7/8	—	—	—	—	—	—	—	GBF-24-77	7-7/8

Bronze-Plated Shoulder & Straight Bushings

Bronze-Plated Shoulder Bushings – LBB

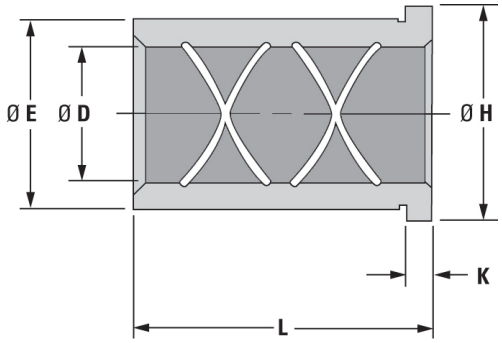


Precision Ground

Standard Shoulder and Straight Bushings feature internal oil grooves and bronze-plating for smooth, non-galling operation.

General Dimensions

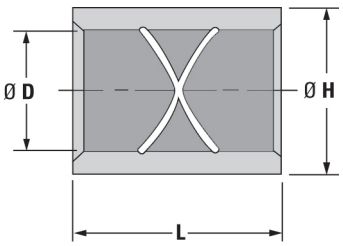
NOMINAL I.D.	Ø E +.0005 -.0000	Ø H +.000 -.030	K
3/4	1.1255	1.302	3/16
7/8	1.2505	1.427	
1"	1.3755	1.552	
11/4	1.6255	1.802	
11/2	2.0005	2.177	
2"	2.5005	2.677	
21/2	3.2505	3.427	
3"	3.7505	3.990	1/2



L LENGTH +.00 -.03	Ø D = 3/4 I.D. .7505 +.0005 -.0000	Ø D = 7/8 I.D. .8755 +.0005 -.0000	Ø D = 1" I.D. 1.0005 +.0005 -.0000	Ø D = 11/4 I.D. 1.2505 +.0005 -.0000	Ø D = 11/2 I.D. 1.5005 +.0005 -.0000	Ø D = 2" I.D. 2.0005 +.0005 -.0000	Ø D = 21/2 I.D. 2.5005 +.0005 -.0000	Ø D = 3" I.D. 3.0005 +.0005 -.0000
	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER
7/8	LBB-06-07	LBB-07-07	LBB-08-07	LBB-10-07	LBB-12-07	—	—	—
13/8	LBB-06-13	LBB-07-13	LBB-08-13	LBB-10-13	LBB-12-13	LBB-16-13	LBB-20-13	—
17/8	LBB-06-17	LBB-07-17	LBB-08-17	LBB-10-17	LBB-12-17	LBB-16-17	LBB-20-17	—
23/8	LBB-06-23	LBB-07-23	LBB-08-23	LBB-10-23	LBB-12-23	LBB-16-23	LBB-20-23	—
27/8	LBB-06-27	LBB-07-27	LBB-08-27	LBB-10-27	LBB-12-27	LBB-16-27	LBB-20-27	—
33/8	LBB-06-33	LBB-07-33	LBB-08-33	LBB-10-33	LBB-12-33	LBB-16-33	LBB-20-33	—
37/8	LBB-06-37	LBB-07-37	LBB-08-37	LBB-10-37	LBB-12-37	LBB-16-37	LBB-20-37	LBB-24-37
43/8	LBB-06-43	LBB-07-43	LBB-08-43	LBB-10-43	LBB-12-43	LBB-16-43	LBB-20-43	—
47/8	LBB-06-47	LBB-07-47	LBB-08-47	LBB-10-47	LBB-12-47	LBB-16-47	LBB-20-47	LBB-24-47
57/8	LBB-06-57	LBB-07-57	LBB-08-57	LBB-10-57	LBB-12-57	LBB-16-57	LBB-20-57	LBB-24-57
77/8	—	—	—	—	—	—	—	LBB-24-77

Bronze-Plated Straight Bushings – STB

Precision Ground





NOMINAL I.D.	Ø D +.0005 -.0000	L +.00 -.03 LENGTH	Ø H +.0005 -.0000	ITEM NUMBER
3/4	.7505	7/8	1.1255	STB-06-07
		13/8	1.1255	STB-06-13
7/8	.8755	13/8	1.2505	STB-07-13
1"	1.0005	13/8	1.3755	STB-08-13
11/4	1.2505	13/8	1.6255	STB-10-13
		17/8	1.6255	STB-10-17
11/2	1.5005	13/8	2.0005	STB-12-13
		17/8	2.0005	STB-12-17
2"	2.0005	37/8	2.5005	STB-16-37
21/2	2.5005	47/8	3.2505	STB-20-47
3"	3.0005	47/8	3.7505	STB-24-47

ALL ITEMS IN STOCK.

Guided Ejection Guide Pins

Guided Ejection Guide Pins – GL

- Short press fit lengths for use in guided ejection applications
- Pins are hardened and precision ground

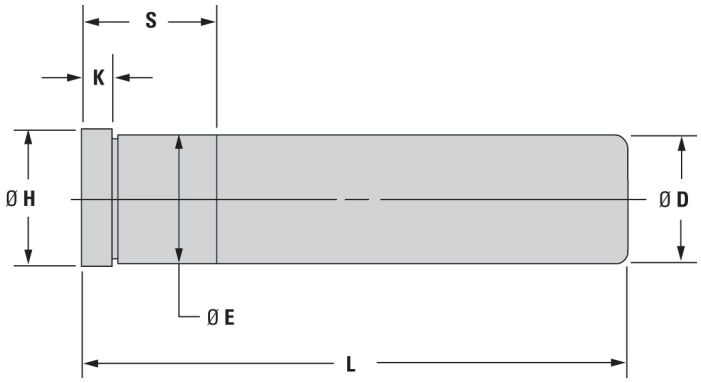


SYSTEM 1

When pins are installed in the support plate, ejector housing can be removed from die without removing ejector plates, permitting easy access to service the ejector system.

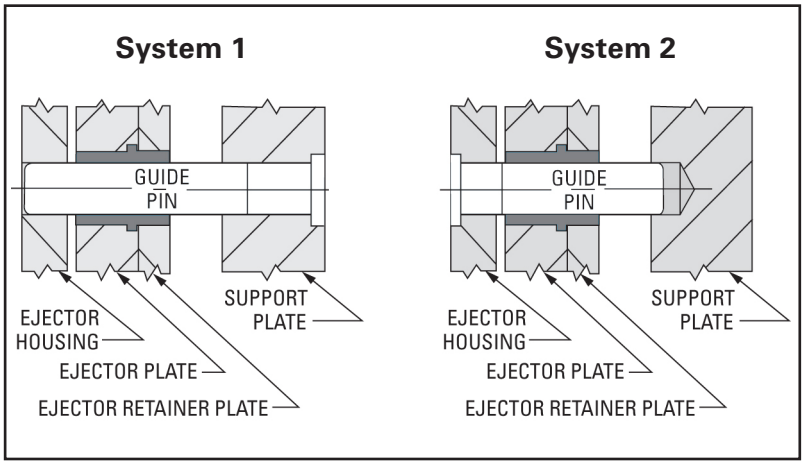
SYSTEM 2

Pins installed in the ejector housing permit fast, low-cost installation. When ejector housing is removed from the die, the complete ejector assembly is removed.



It is recommended that a minimum of four pins and bushings be installed. Size of the pins and bushings should be determined by the size of the die. The Guided Ejection System is an inexpensive method to protect against wear and costly damage to a die in production.

Properly installed, the Guided Ejection System holds the ejector assembly in alignment and supports the weight of the ejector assembly throughout the entire machine cycle. This greatly reduces wear



General Dimensions

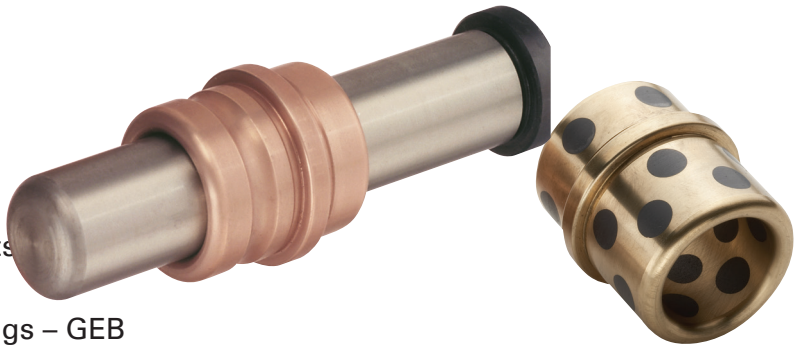
L LENGTH +.00 -.06	Ø D = 3/4 I.D. .749 +.0000 -.0005		Ø D = 7/8 I.D. .874 +.0000 -.0005		Ø D = 1" I.D. .999 +.0000 -.0005		Ø D = 11/4 I.D. 1.249 +.0000 -.0005		Ø D = 11/2 I.D. 1.499 +.0000 -.0005	
	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER	S	ITEM NUMBER
33-/4	7/8	5004-GL	7/8	5103-GL	7/8	5202-GL	7/8	5302-GL	1-3/8	5402-GL
4-1/4	7/8	PF-5005-GL	7/8	PF-5104-GL	7/8	PF-5203-GL	7/8	5303-GL	1-3/8	5403-GL
4-3/4	7/8	PF-5006-GL	7/8	PF-5105-GL	7/8	PF-5204-GL	1-3/8	5304-GL	1-3/8	5404-GL
5-1/4	7/8	PF-5007-GL	7/8	PF-5106-GL	7/8	PF-5205-GL	1-3/8	5305-GL	1-3/8	5405-GL
5-3/4	7/8	PF-5008-GL	7/8	PF-5107-GL	7/8	PF-5206-GL	1-3/8	5306-GL	1-3/8	5406-GL
6-1/4	—	—	—	—	—	—	1-3/8	5307-GL	1-3/8	5407-GL

NOMINAL DIA	Ø D +.0000 -.0005	Ø H (MAX)	K	Ø E +.0005 -.0000
3/4	.749	.990	3/16	.751
7/8	.874	1.115	1/4	.876
1"	.999	1.240	1/4	1.001
1-1/4	1.249	1.490	5/16	1.251
1-1/2	1.499	1.740	5/16	1.501

NOTES: 1. Select corresponding bronze-plated guided ejection bushings or self-lubricating guided ejection bushings in proper diameter for the application.
2. Guided Ejection Systems are available installed in standard dies. For additional information and prices, contact us.

ALL ITEMS IN STOCK.

Guided Ejection Bushings



- Holds the ejector assembly in alignment
- Supports the weight of the ejector assemblythroughout the entire cycle
- Reduces wear on ejection components
- Bronze-Plated Guided Ejection Bushings – GEB

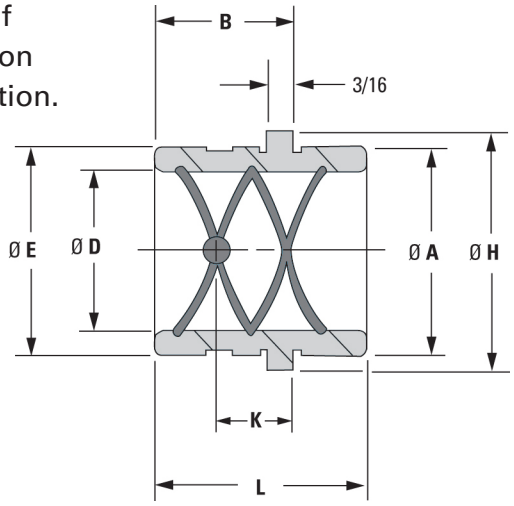
The Bronze-Plated Guided Ejection Bushings feature the strength of steel plus the nonscoring lubricity of bronze plating. Internal oil grooves and a lubrication hole help to ensure smoother die operation.

Guided Ejection Systems are available installed in standard dies. For additional information and prices, contact us.

It is recommended that a minimum of four bushings be installed. The size of the bushings should be determined by the size of the die. The Guided Ejection System is inexpensive protection [illegible] ction.

NOMINAL I.D.	Ø D +.0005 -.0000	Ø E +.0005 -.0000	Ø A +.000 -.001	Ø H +.000 -.010	L +.00 -.03	B	K	ITEM NUMBER
3/4	.751	1.1255	1.1240	1.302	1.50	1.00	.56	GEB-750
7/8	.876	1.2505	1.2490	1.427	1.50	1.00	.56	GEB-875
1"	1.001	1.3755	1.3740	1.552	1.75	1.12	.62	GEB-100
11/4	1.251	1.6255	1.6240	1.802	1.75	1.12	.62	GEB-125
11/2	1.501	2.0005	1.9990	2.177	1.75	1.12	.62	GEB-150

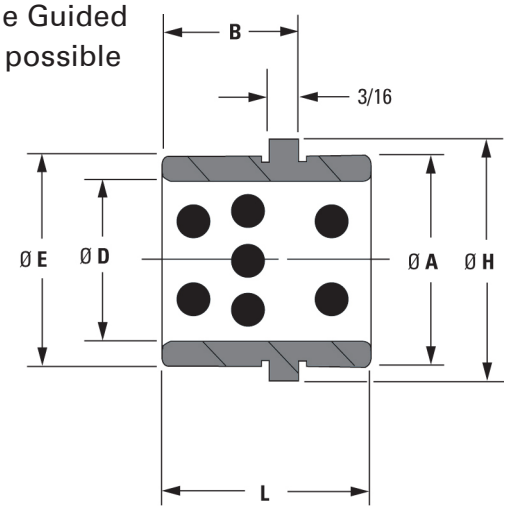
NOTE: SELECT CORRESPONDING GUIDE PIN IN PROPER DIAMETER AND LENGTH FOR APPLICATION.



Self-Lubricating Guided Ejection Bushings – GBE

It is recommended that a minimum of four bushings be installed. Bushing size should be determined by the size of the die. The Guided Ejection System is inexpensive protection against wear and possible costly damage to a die in production.

NOMINAL I.D.	Ø D +.0005 -.0000	Ø E +.0005 -.0000	Ø A +.000 -.001	Ø H +.000 -.030	L +.00 -.06	B	ITEM NUMBER
3/4	.751	1.1255	1.1240	1.302	1.50	1.00	GBE-0750
7/8	.876	1.2505	1.2490	1.427	1.50	1.00	GBE-0875
1"	1.001	1.3755	1.3740	1.552	1.75	1.12	GBE-1000
11/4	1.251	1.6255	1.6240	1.802	1.75	1.12	GBE-1250
11/2	1.501	2.0005	1.9990	2.177	1.75	1.12	GBE-1500
2"	2.001	2.5005	2.4990	2.687	2.25	1.62	GBE-2000



NOTES:

1. Select corresponding guide pin in proper diameter and length for application.
2. These bushings are interchangeable with comparably sized DME bronze- plated guided ejection bushings.
   2" I.D. size (GBE-2000) is available only in self-lubricating style.

ALL ITEMS IN STOCK.

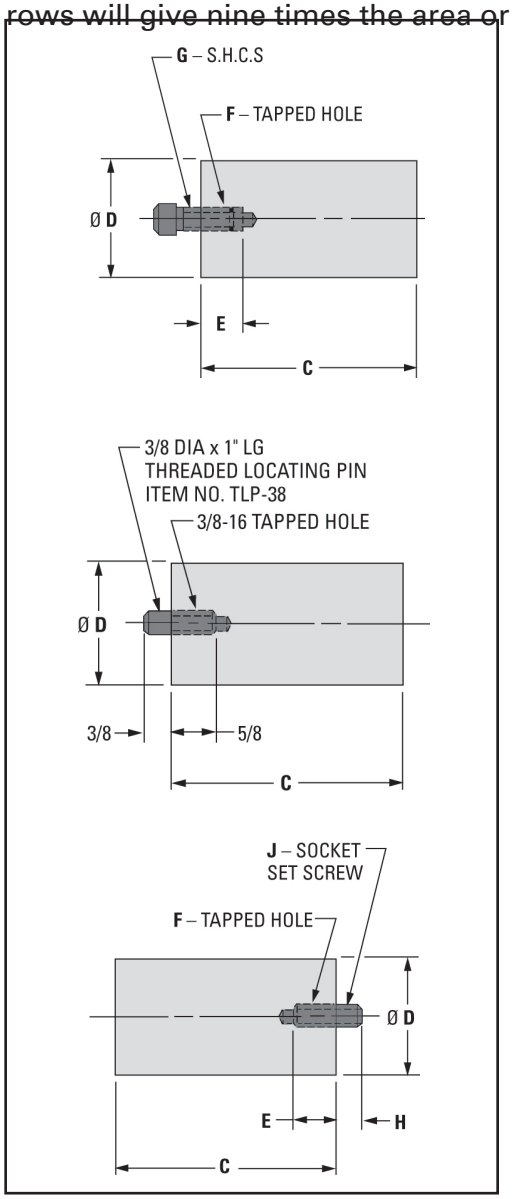
Support Pillars & Stop Pins

Support Pillars

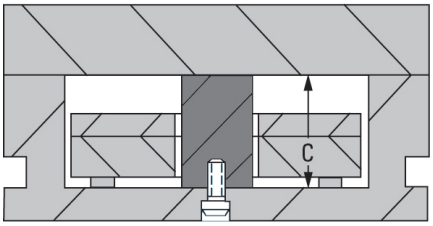
S.A.E. 1040 Steel
Pillar height (C dimension) is finished flat and parallel.



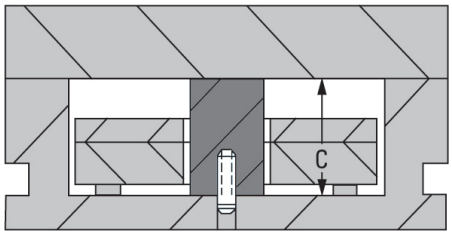
Support pillars should be used liberally since they greatly increase
the capacity of the die to support the projected area of the cavities, runner and sprue. By providing additional support, they prevent deflection of the die. The absolute necessity of using support pillars is demonstrated by using standard strength of materials formulas.
For example, an 117/8 x 15" die without support pillars and with a maximum permissible load on the support plate, will permit 14 square inches of cavity area without deflecting enough to cause flash. The use of one row of support pillars on center will quadruple this permissible cavity area to 56 square inches. Two rows will give nine times the area or 126 square inches. Please



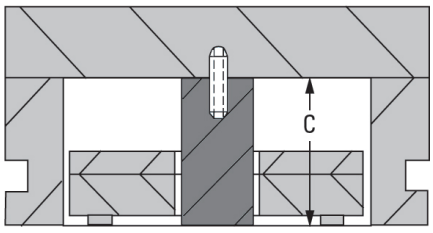
CAP SCREW APPLICATION



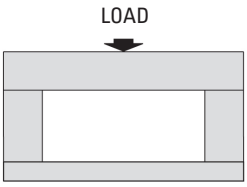
THREADED LOCATING PIN APPLICATION



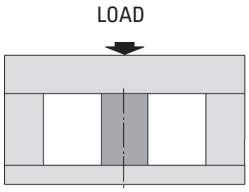
SOCKET SET SCREW APPLICATION



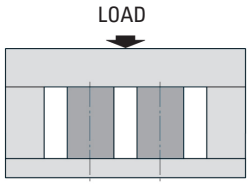
MATERIAL: S.A.E. 1040 STEEL



• No support pillars



• One row of support pillars increases the permissible cavity area 4 times.

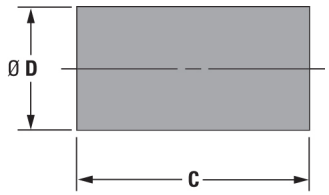


• Two rows of support pillars increase the permissible cavity area 9 times.

Ø D	E	F	H (APPROX)	J SOCKET SET SCREW
1", 11/4, 11/2, 2"	5/8	3/8 – 16	1/2	ITEM NO. SSS-38114
3", 4"	11/4	5/8 – 11	3/8	ITEM NO. SSS-582

NOTE: ORDER S.H.C.S. SEPARATELY.

Support Pillars & Stop Pins



Support Pillars

Support pillars are universally adaptable for cap screw, threaded locating pin,or socket set screw applications.

Order pillars from chart at left and required “fasteners” as listed below.

Cap Screw (S.H.C.S.) Applications
3/8-16 or 5/8-11 socket head cap screws can be ordered in length required.

Threaded Locating Pin Applications

Ø D PILLAR	ITEM NUMBER
1" TO 2"	TLP-38

MATERIAL: S.A.E. 1040 STEEL

Ø D +.000 -.060 DIAMETER	C +.001 -.000 HEIGHT	ITEM NUMBER
1"	2.500	6090
	3.000	6091
	3.500	6092
	4.000	6093
	4.500	6094
11/4	2.500	6130
	3.000	6131
	3.500	6132
	4.000	6133
	4.500	6134
	5.000	6135
	6.000	6136
11/2	2.500	6140
	3.000	6141
	3.500	6142
	4.000	6143
	4.500	6144
	5.000	6145
	6.000	6146
2"	2.500	6150
	3.000	6151
	3.500	6152
	4.000	6153
	4.500	6154
	5.000	6155
	6.000	6156
3"	5.000	6235
	6.000	6236
	8.000	6238
4"	5.000	6245
	6.000	6246
	8.000	6248

Ø D PILLAR	ITEM NUMBER	QTY PER PACKAGE
1" TO 2"	SSS-38114	10
3" AND 4"	SSS-582	5

Stop Pins

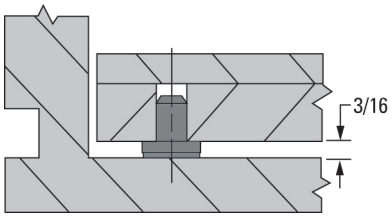
Although every Die assembly has flat stop pins welded to the underside of the ejector plate, many diemakers require these dowel-type Stop Pins for special

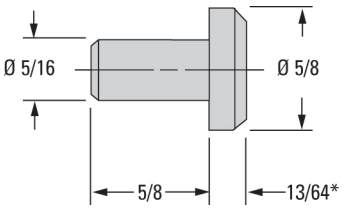


ORDER PINS IN PACKAGE LOTS ONLY.

ITEM NUMBER	QTY PER PACKAGE
7100	50

TYPICAL INSTALLATION





*HEAD THICKNESS .020 OVERSIZE TO PERMIT FITTING AT ASSEMBLY.

Guide Pins for Special Die Tooling Needs

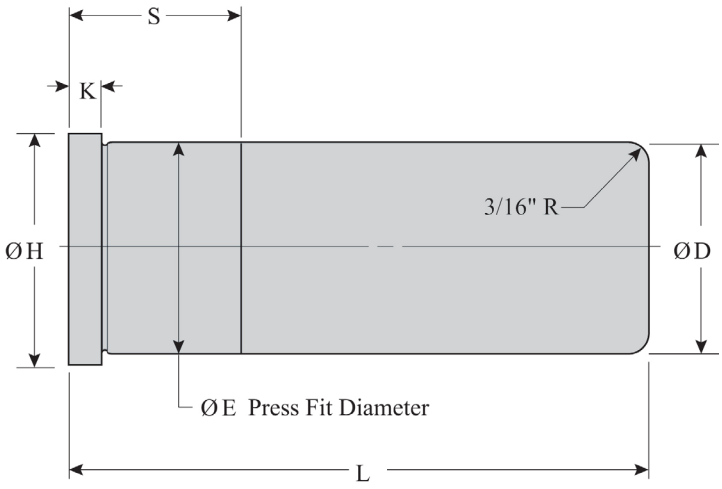
Special Straight and Shoulder Guide Pins can be custom-ordered in a wide range of diameters and lengths to suit almost any die tooling requirement. Made with case-hardened steel for dependable performance and long service life, D-M-E Special Guide Pins feature:

- Diameters up to 3"
- Lengths up to 33-1/2"
- Case-hardened steel (HRC 58-64)
- Close tolerances of .0005" on critical diameters

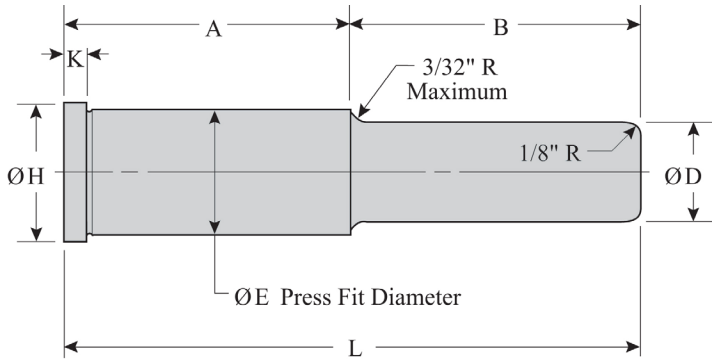
We operates a state-of-the-art manufacturing facility to ensure that your quality and delivery goals are met. Extensive resources and efficient processes provide rapid order fulfillment. Advanced manufacturing techniques and trained, dedicated personnel ensure quality.

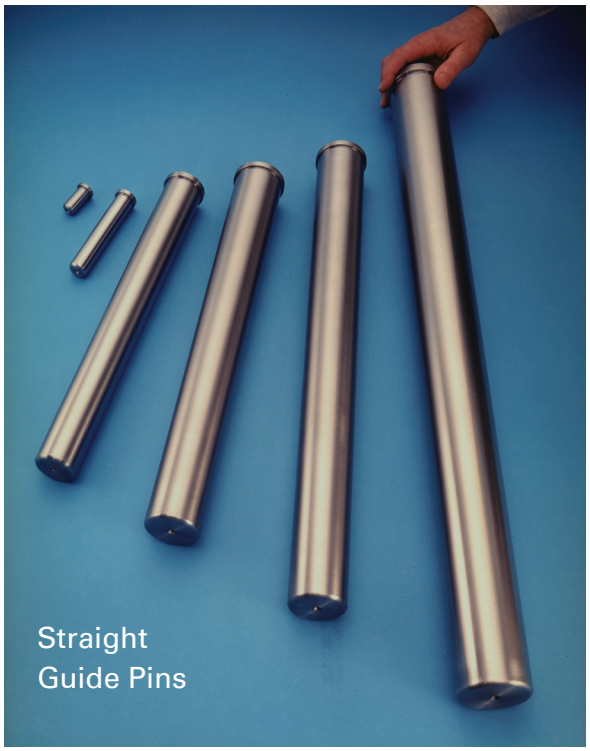
Contact is for your special guide pin needs. We can quote your application and process your order immediately (see faxable quote

Straight Guide Pins



Shoulder Guide Pins







Special Guide Pins Quote Form

ONLINE FORM

QUOTE FAX HOTLINES or visit www.dme.net

United States 888-808-4363 • Canada 800-461-9965 • International 248-398-7394

Company name: DME account #:

Contact name: P.O. #:

Phone: FAX:

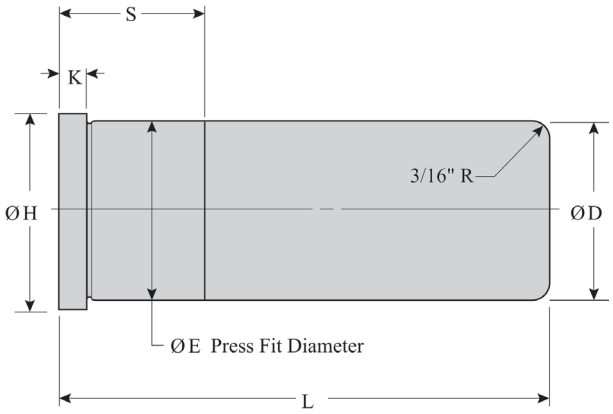
Address: E-mail:

City: State/Province:

ZIP/Postal Code: Country:

Shipping method:
- ☐ UPS Ground
- ☐ UPS 2nd Day Air
- ☐ UPS Next Day
- ☐ FedEx
- ☐ Other _____

Straight Guide Pins

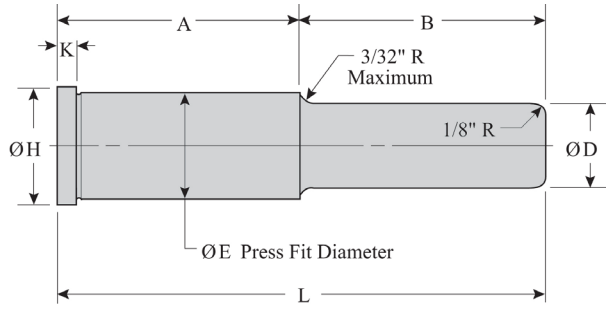


	STANDARD DIMENSIONS (CIRCLE YES OR NO)	REQUESTED DIMENSIONS*	INCH TOLERANCES (STANDARD)
Ø D	YES NO		+.0000 –.0005
Ø E	YES NO		+.0005 –.0000
S	YES NO		+.00 –.06
Ø H	YES NO		+.00 –.03
L	YES NO		+.00 –.06
K	YES NO		+.003 –.005

*ALL REQUESTED DIMENSIONS MUST BE SPECIFIED FOR QUOTING.

Quantity: _____ Pieces

Shoulder Guide Pins



	STANDARD DIMENSIONS (CIRCLE YES OR NO)	REQUESTED DIMENSIONS*	INCH TOLERANCES (STANDARD)
Ø D	YES NO		+.0000 –.0005
Ø E	YES NO		+.0005 –.0000
A	YES NO		+.00 –.03
B	YES NO		+.00 –.03
Ø H	YES NO		+.00 –.01
L	YES NO		+.00 –.06
K	YES NO		+.003 –.005

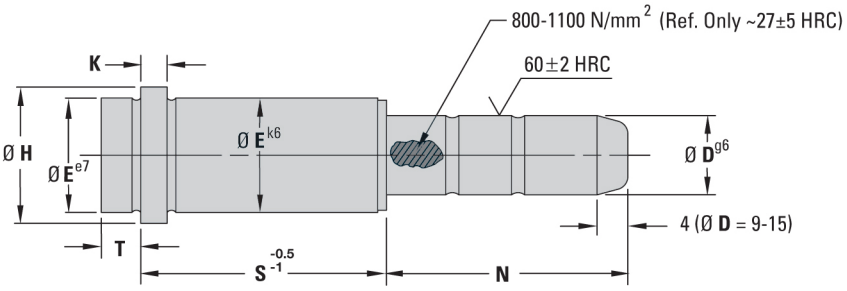
*ALL REQUESTED DIMENSIONS MUST BE SPECIFIED FOR QUOTING.

Quantity: _____ Pieces

Guide Pins (with Collar)

Guide Pins (with Collar) – GDP-EC

Information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
N = Pin Body Length
S = Shoulder Length
T = Collar Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	T	S	N																					
							020	025	030	035	045	050	055	060	065	070	075	085	090	095	105	110	125	135	145	150	155	165
GDP-EC (R02)*	09 OR 10	14	16	3	3	012																						
						017																						
						022		⚡																				
						027			⚡																			
						036		⚡			⚡																	
						046																						
						056																						
GDP-EC (R02)*	14 OR 15	20	25	6	9	017																						
						022			⚡			⚡																
						027			⚡		⚡				⚡													
						036				⚡			⚡															
						046				⚡	⚡				⚡													
						056				⚡			⚡															
						066							⚡															
						076																						
						086																						
						096																						
						116																						

* "(R02)" IS ONLY A CROSS-REFERENCE TO CURRENT DME EUROPE CATALOG ITEM PREFIX NUMBERS.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, S LENGTH, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX	D	S	N
GDP-EC	-	-	-

EXAMPLE:
PREFIX D S N
GDP-EC-09-027-020

EXAMPLE:
PREFIX D S N
GDP-EC-14-066-055

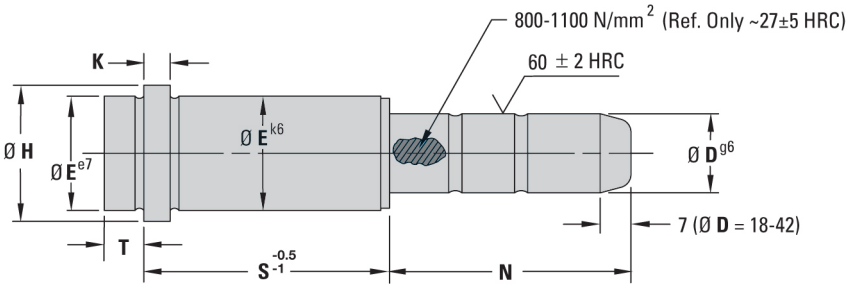
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

For Surface Finish Definitions and Fit Tolerances, see Appendices E and F from the Technical Reference Information PDF found at www.dme.net

Guide Pins (with Collar)

Guide Pins (with Collar) – GDP-EC

Information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
N = Pin Body Length
S = Shoulder Length
T = Collar Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information



ITEM PREFIX	D	E	H	K	T	S	N																		
							035	045	055	065	075	085	095	105	115	120	125	130	135	145	155	165	205	225	245	255	285
GDP-EC (R02)*	18 OR 20	26	31	6	9	017																				
						022																				
						027	⚡	⚡		⚡		⚡														
						036	⚡		⚡		⚡		⚡													
						046	⚡	⚡		⚡		⚡		⚡												
						056	⚡		⚡		⚡		⚡													
						066			⚡		⚡															
						076			⚡		⚡															
						086																				
						096							⚡													
						116																				
						136																				
GDP-EC (R02)*	22 OR 24	30	35	6	9	017																				
						022																				
						027	⚡	⚡		⚡		⚡		⚡												
						036	⚡		⚡		⚡		⚡		⚡				⚡			⚡	⚡		⚡	
						046	⚡	⚡		⚡		⚡		⚡			⚡					⚡	⚡			
						056	⚡		⚡		⚡		⚡		⚡							⚡				
						066			⚡		⚡		⚡								⚡					
						076			⚡		⚡		⚡		⚡											
						086			⚡		⚡		⚡													
						096			⚡		⚡		⚡				⚡									
						116					⚡				⚡						⚡					
						136							⚡													
						156																				

* "(R02)" IS ONLY A CROSS-REFERENCE TO CURRENT DME EUROPE CATALOG ITEM PREFIX NUMBERS.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, S LENGTH, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX GDP-EC - D - S - N

EXAMPLE:
PREFIX D S N
GDP-EC-18-056-035

EXAMPLE:
PREFIX D S N
GDP-EC-22-116-155

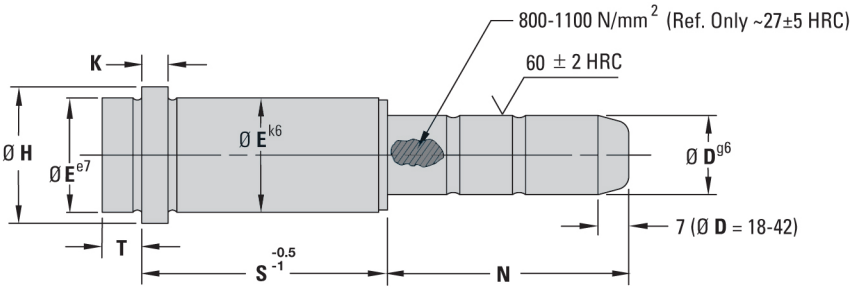
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Guide Pins (with Collar)

Guide Pins (with Collar) – GDP-EC

Information KEY:

D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
N = Pin Body Length
S = Shoulder Length
T = Collar Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	T	S	N																				
							045	055	065	075	085	095	105	115	125	135	155	165	175	185	195	205	215	225	235	245	285	295
GDP-EC (R02)*	30 OR 32	42	47	6	9	027																					
						036																					
						046																					
						056				⚡																	
						066						⚡															
						076				⚡		⚡		⚡			⚡										
						086				⚡		⚡															
						096				⚡		⚡		⚡			⚡										
						116				⚡				⚡			⚡										
						136								⚡			⚡										
						156								⚡			⚡										
						196																					
						046																					
GDP-EC (R02)*	40 OR 42	54	60	10	12	056																					
						066																					
						076																					
						086																					
						096																					
						116																					
						136																					
						156																					
						196																					
						246																					

* "(R02)" IS ONLY A CROSS-REFERENCE TO CURRENT DME EUROPE CATALOG ITEM PREFIX

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, S LENGTH, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX		D		S		N
GDP-EC	-		-		-	

EXAMPLE:

PREFIX	D	S	N
GDP-EC-30-096-075			

EXAMPLE:

PREFIX	D	S	N
GDP-EC-42-246-245			

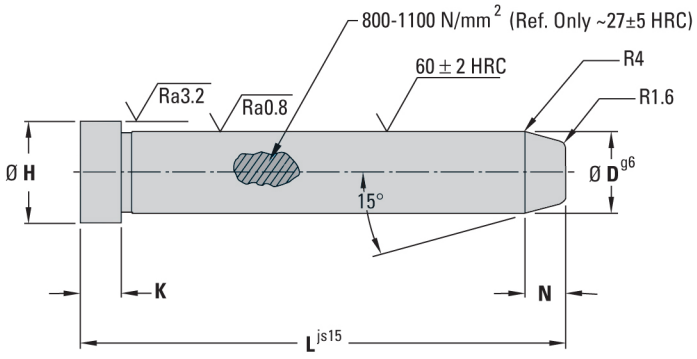
KEY TO CHART

⚡ Items in stock
2-3 week delivery
Contact us

Angle Pins

Angle Pins – APD

Information KEY:
D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Pin Length
N = Lead in Taper Length
Standard: DIN Type
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information



ITEM PREFIX	D	H	K	N	L 040	060	080	100	120	140	160	180	200	210	220	230	240	250	270	300	360
APD	10	12	3	5	⚡		⚡			⚡											
	12	16	6	5			⚡	⚡	⚡	⚡	⚡										
	14	18	8	6					⚡	⚡	⚡	⚡	⚡		⚡						
	16	20	8	7				⚡	⚡	⚡	⚡	⚡	⚡		⚡						
	18	22	8	8							⚡	⚡	⚡			⚡					
	20	24	8	8					⚡	⚡	⚡	⚡	⚡				⚡				
	22	26	15	8																	
	24	28	15	8						⚡			⚡		⚡						
	30	34	15	8								⚡					⚡		⚡	⚡	
	40	48	15	10													⚡			⚡	
	50	58	15	10													⚡			⚡	⚡

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER AND L LENGTH. INCLUDE ZEROS AS SHOWN, BUT OMIT ALL SPACES (SPACES ARE ONLY SHOWN HERE FOR EASIER READING).

PREFIX	D	L
APD		

EXAMPLE:

PREFIX D L
APD 10 040

EXAMPLE:

PREFIX D L
APD 50 360

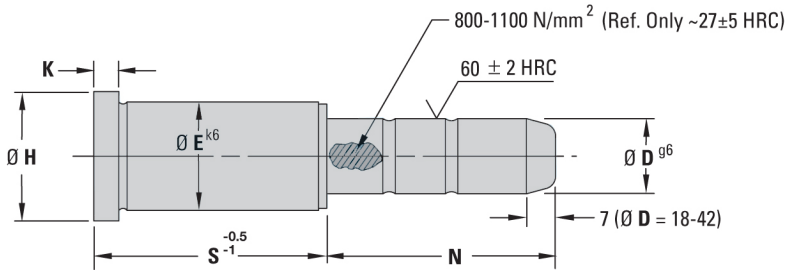
KEY TO CHART

⚡ Items in stock
2-3 week delivery
Contact US

Guide Pins (without Collar)

Guide Pins (without Collar) – GDP-ES

Information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
N = Pin Body Length
S = Shoulder Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information



ITEM PREFIX	D	E	H	K	S	N 020	025	030	035	040	045	050	055	060	065	070	075	080	085	090	095	105	110	115	125	135	165
GDP-ES (R01)*	09 OR 10	14	16	3	017	■		■																			
					022		■		■				■															
					027			■				■																
					036		■				■																
					046			■			■																
GDP-ES (R01)*	14 OR 15	20	25	6	022	■			■	■	■	■	■		■	■				■			■				
					027	■			■	■	■		⚡		⚡				■			■					
					036	■			⚡	■	⚡		⚡		■		■				■						
					046	■			■		■				■				■			■					
					056				■				■				■				■						
					066								■		■						■						
					076								■								■						
					086								■								■						
GDP-ES (R01)*	18 OR 20	26	31	6	022	■			■	■	■	■	■	■	■	■		■	■					■			
					027	■			■	■	■	■	⚡		⚡	■		■	⚡			⚡			⚡		
					036	■			⚡	■	⚡	■	⚡	■	⚡	■	⚡	■			■			⚡		■	
					046	■					⚡				⚡				⚡			⚡				■	⚡
					056	■			⚡				⚡				■				■						
					066								⚡				■				■						
					076								■				■				■						
					086								■				■				■						
					096								■								■						
					116																			■			

* "(R01)" is only a cross-reference to current DME Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, S LENGTH, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX GDP-ES - D - S - N

EXAMPLE:
PREFIX D S N
GDP-ES-14-036-035

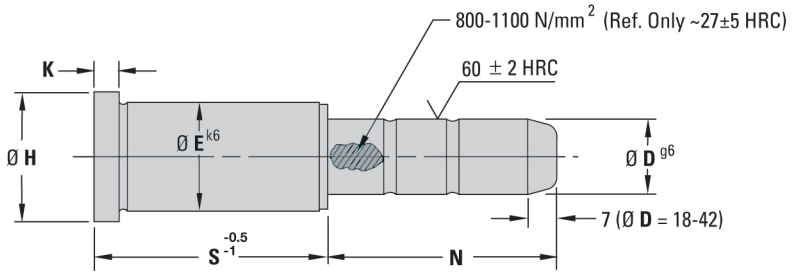
EXAMPLE:
PREFIX D S N
GDP-ES-18-046-165

KEY TO CHART
⚡ Items in stock
■ 2-3 week delivery
□ Contact us

Guide Pins (without Collar)

Guide Pins (without Collar) – GDP-ES

Information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
N = Pin Body Length
S = Shoulder Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	S	N																		
						025	045	050	055	060	065	070	075	080	085	095	105	115	125	135	155	165	175	195	215	235
GDP-ES (RO1)*	22 OR 24	30	35	6	027		⚡																			
					036		⚡		⚡							⚡		⚡		⚡						
					046		⚡				⚡						⚡		⚡							
					056		⚡		⚡				⚡													
					066				⚡				⚡			⚡										
					076																					
					086																					
					096																					
					116																					
					136																					
GDP-ES (RO1)*	30 OR 32	42	47	6	027																					
					036																					
					046																					
					056				⚡				⚡													
					066				⚡				⚡													
					076								⚡													
					086				⚡				⚡													
					096																					
					116								⚡					⚡								
					136																					
					156																					
					196																					
GDP-ES (RO1)*	40 OR 42	54	60	10	056																					
					066																					
					076																					
					086																					
					096																					
					116																					
					136																					
					156																					
					196																					

* "(R01)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, S LENGTH, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

Prefix		D		S		N
GDP-ES	-		-		-	

EXAMPLE:
PREFIX D S N
GDP-ES-22-027-045

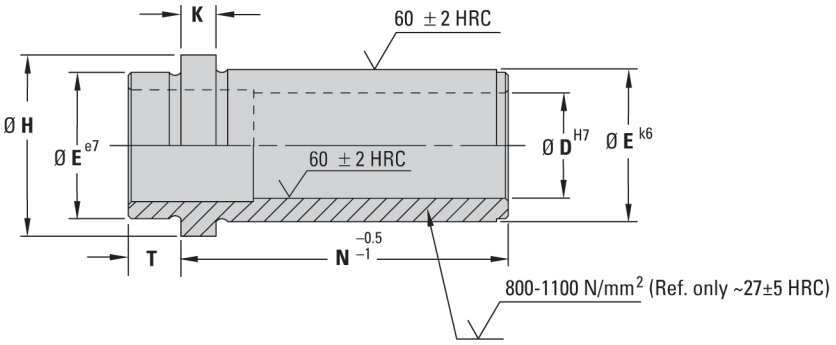
EXAMPLE:
PREFIX D S N
GDP-ES-40-115-156

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Guide Pin Bushings (with Collar)
Self-Lube Guide Pin Bushings (with Collar)

Guide Pin Bushings (with Collar) – GDB-ECS

Information KEY:
D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
N = Bushing Length from Head
T = Collar Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	T	N 017	022	027	036	046	056	066	076	086	096	116	136	156	196	246
GDB-ECS (R04)*	14 OR 15	20	25	6	9		⚡	⚡	⚡	⚡	⚡									
	18 OR 20	26	31	6	9			⚡	⚡	⚡	⚡	⚡		⚡						
	22 OR 24	30	35	6	9			⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡					
	30 OR 32	42	47	6	9							⚡		⚡	⚡	⚡	⚡			
	40 OR 42	54	60	10	12															

* "(R04)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX GDB-ECS - D - N

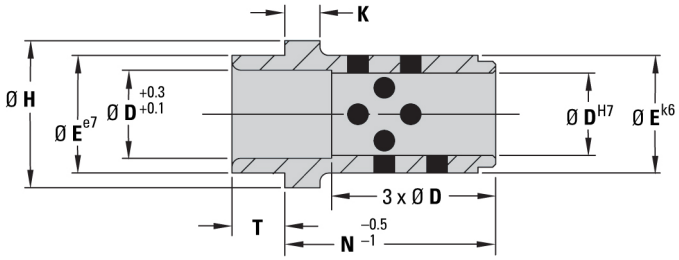
EXAMPLE:
PREFIX D N
GDB-ECS-18-036

EXAMPLE:
PREFIX D N
GDB-ECS-32-116

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME

Self-Lube Guide Pin Bushings (with Collar) – GDB-ECL

Information KEY:
D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
N = Bushing Length from Head
T = Collar Length
Standard: Euro-Series
Material: 2.0975 with Graphite Plugs 200HB
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	T	N 017	022	027	036	046	056	066	076	086	096	116	136	156
GDB-ECL (R04W)*	09 OR 10	14	16	3	3			⚡	⚡									
	14 OR 15	20	25	6	9			⚡	⚡	⚡								
	18 OR 20	26	31	6	9			⚡	⚡	⚡		⚡						
	22 OR 24	30	35	6	9			⚡	⚡	⚡		⚡	⚡					
	30 OR 32	42	47	6	9									⚡	⚡			
	40 OR 42	51	60	10														

* "(R04W)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, AND N LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX GDB-ECL - D - N

EXAMPLE:
PREFIX D N
GDB-ECL-09-036

EXAMPLE:
PREFIX D N
GDB-ECL-30-096

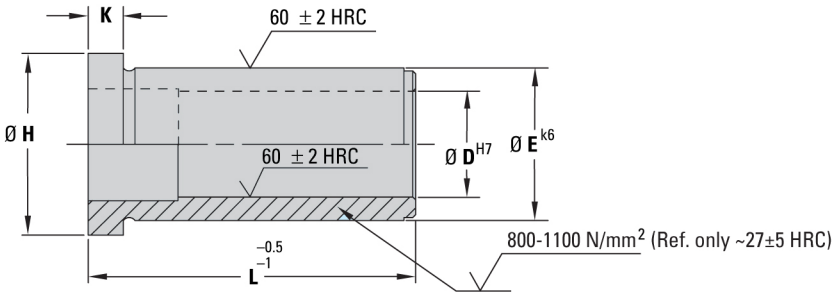
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME

Guide Pin Bushings (without Collar)
Self-Lube Guide Pin Bushings (without Collar)

Guide Pins Bushings (without Collar) – GDB-ESS

Information KEY:

D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
L = Bushing Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	E	H	K	L 009	012	017	022	027	036	046	056	066	076	086	096	116	136	156	246
GDB-ESS (R03)*	09 OR 10	14	16	6																
	14 OR 15	20	25	6					⚡	⚡	⚡	⚡								
	18 OR 20	26	31	6					⚡	⚡	⚡	⚡	⚡		⚡		⚡			
	22 OR 24	30	35	6					⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡			
	30 OR 32	42	47	6							⚡				⚡	⚡		⚡		
	40 OR 42	54	60	10																

* "(R03)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, AND L LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX D L
GDB-ESS - [ ] - [ ]

EXAMPLE:
PREFIX D L
GDB-ESS-09-022

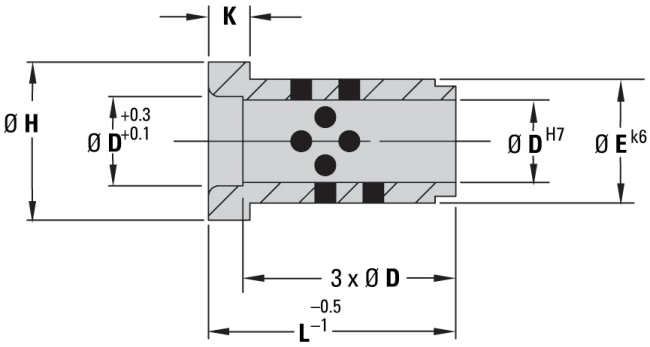
EXAMPLE:
PREFIX D L
GDB-ESS-32-136

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Self-Lube Guide Pin Bushings (without Collar) – GDB-ESL

Information KEY:

D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
L = Bushing Length
Standard: Euro-Series
Material: 2.0975 with Graphite Plugs 200HB
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.



ITEM PREFIX	D	E	H	K	L 017	022	027	036	046	056	066	076	086	096	116	136
GDB-ESL (R03W)*	09 OR 10	14	16	3												
	14 OR 15	20	25	6			⚡	⚡	⚡							
	18 OR 20	26	31	6			⚡	⚡	⚡		⚡					
	22 OR 24	30	35	6			⚡	⚡	⚡		⚡					
	30 OR 32	42	47	6									⚡	⚡		
	40 OR 42	54	60	10												

* "(R03W)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER, AND L LENGTH. INCLUDE ZEROS AND DASHES BUT OMIT DECIMALS, AS SHOWN.

PREFIX D L
GDB-ESL - [ ] - [ ]

EXAMPLE:
PREFIX D L
GDB-ESL-10-036

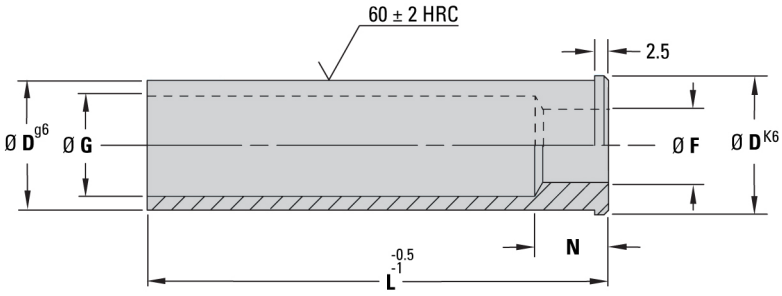
EXAMPLE:
PREFIX D L
GDB-ESL-32-096

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us for

Centering Bushing – Locating Sleeve

Centering Bushing (Locating Sleeves) – R05

Information KEY:
D = Outside Diameter
F = Inside Diameter
G = Inside Clearance Diameter
L = Length
N = Inside Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	F	G	N	L														
					020	030	040	050	060	070	080	100	120	140	160	180	200	240	280	300
R05	14	6	11	8																
	20	8	16	13					⚡		⚡	⚡								
	26	10	21	13					⚡		⚡	⚡	⚡	⚡						
	30	12	25	13					⚡		⚡	⚡	⚡	⚡						
	42	16	33	13								⚡	⚡	⚡						
	54	20	43	13																

HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER AND L LENGTH. INCLUDE ZEROS AS SHOWN, BUT OMIT ALL SPACES (SPACES ARE ONLY SHOWN HERE FOR EASIER READING).

PREFIX	D	L
R05		

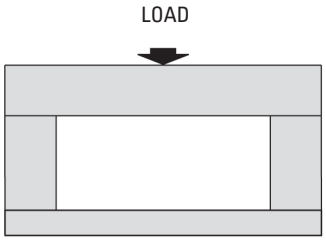
EXAMPLE:
PREFIX D L
R05 20 040

EXAMPLE:
PREFIX D L
R05 42 140

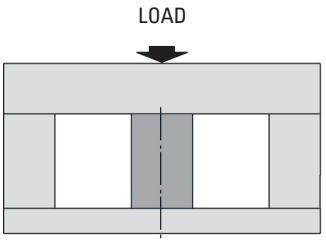
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Support Pillars

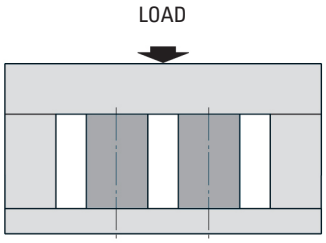
Support Pillars with Drilled & Counterbored Hole – FW28



• No support pillars

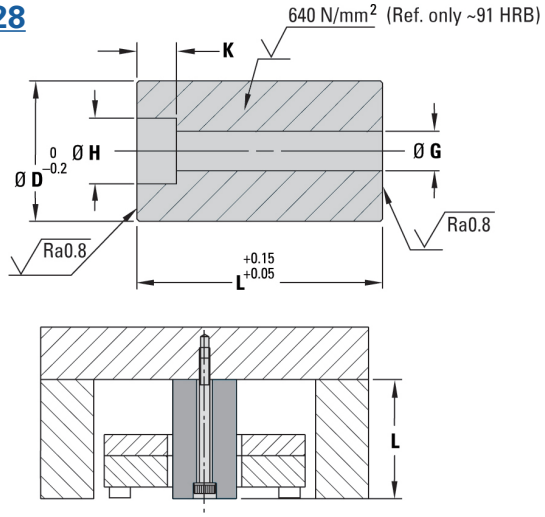


• One row of support pillars increases the permissible cavity area 4 times.



• Two rows of support pillars increase the permissible cavity area 9 times.

Information KEY:
D = Outside Diameter
G = Through Hole Diameter
H = Counterbore Diameter
K = Counterbore Depth
L = Length
Standard: DIN Type
Material: 1.1730 Steel
Surface Treatment: None
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net

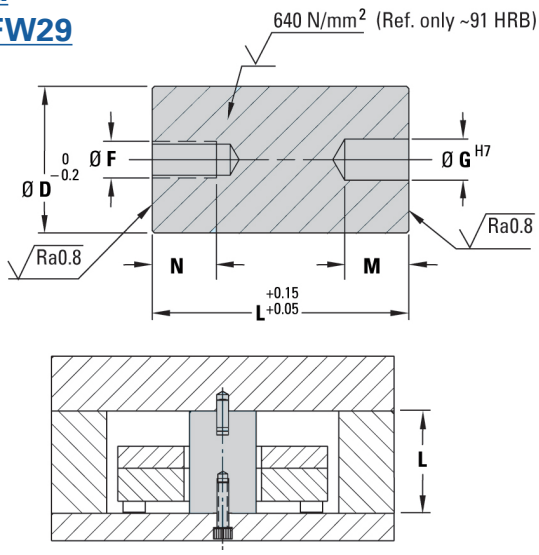


ITEM PREFIX	D	G	H	K	L					
					046	056	076	096	116	136
FW28	32	9	15	9		⚡	⚡			
	40	11	18	11		⚡	⚡	⚡		
	50	13	20	13			⚡	⚡		
	63	13	20	13				⚡		

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Support Pillars with Tapped Hole and Hole for Dowel – FW29

information KEY:
D = Outside Diameter
F = Tap Diameter
G = Dowel Locating Hole Diameter
L = Length
M = Locating Hole Depth (minimum)
N = Tap Depth (minimum)
Standard: DIN Type
Material: 1.1730 Steel
Surface Treatment: None
Surface Finish Definitions: See Appendix E*
Fit Tolerances: See Appendix F*
Dimensions: Shown in Millimeters (mm)
*See Technical Reference Information at www.dme.net



ITEM PREFIX	D	G	M	F	N	L				
						046	056	076	096	116
FW29	32	8	14	M8	14		⚡	⚡		
	40	10	18	M10	18		⚡	⚡	⚡	
	50	10	18	M10	18			⚡	⚡	
	63	10	18	M10	18				⚡	

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

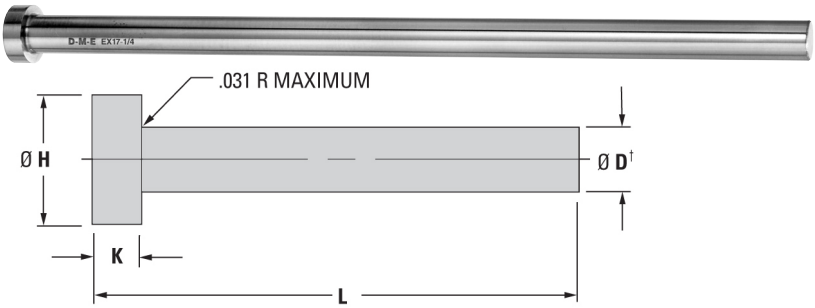
HOW TO ORDER: SPECIFY ITEM NUMBER WITH PREFIX, D DIAMETER AND L LENGTH. INCLUDE ZEROS AS SHOWN, BUT OMIT ALL SPACES (SPACES ARE ONLY SHOWN HERE FOR EASIER READING).

PREFIX D L

EXAMPLE:
PREFIX D L
FW28 32 076

EXAMPLE:
PREFIX D L
FW29 63 096

INCH Ejector Pins - H13 Nitrided - Straight



- Precision made of superior quality H13 type thermal shock resisting hotwork die steel
- Hot-forged heads provide uniform grain flow, higher tensile strength
- Core hardness 40-45 HRC
- Outside diameter nitrided to 65-74 HRC hardness and finished to minimize wear
- Heads annealed for easy machining

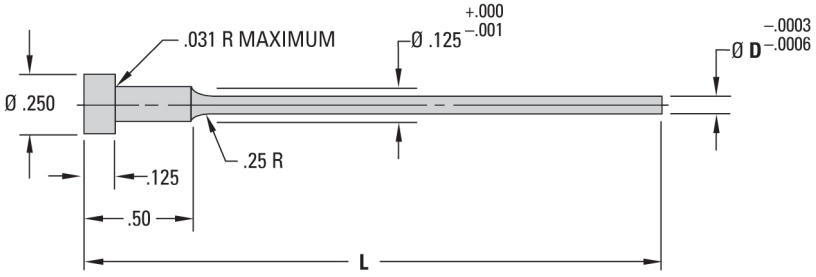
INCH Ejector Pins – EX

ITEM NUMBER PREFIX	Ø D PIN DIA	Ø D† PIN DIA TOL	Ø H HEAD DIA	K HEAD THK	L = LENGTH 6 D STD	6 D .005 OVER SIZE	10 D STD	10 D .005 OVER SIZE	14 D STD	14 D .005 OVER SIZE	18 D STD	18 D .005 OVER SIZE	25 Ø D -.0003 -.0008 D STD	36 Ø D -.0003 -.0008 D STD	45 Ø D -.0003 -.0008 D STD
EX3M _*_NS	3/64 (.0468)	-.0003 -.0006	.250	.125	⚡	⚡									
EX5M _*_NS	1/16 (.0625)		.250	.125	⚡	⚡									
EX6M _*_NS	5/64 (.0781)		.250	.125	⚡		⚡	⚡							
EX7M _*_NS	3/32 (.0937)		.250	.125	⚡	⚡	⚡	⚡							
EX8M _*_NS	7/64 (.1093)		.250	.125	⚡		⚡	⚡							
EX9M _*_	1/8 (.1250)		.250	.125	⚡	⚡	⚡	⚡	⚡	⚡					
EX10M _*_	9/64 (.1406)		.250	.125			⚡	⚡	⚡						
EX11M _*_	5/32 (.1562)		.281	.156	⚡	⚡	⚡	⚡	⚡	⚡	⚡				
EX12M _*_	11/64 (.1718)		.343	.187			⚡	⚡	⚡						
EX13M _*_	3/16 (.1875)		.375	.187	⚡	⚡	⚡	⚡	⚡	⚡	⚡		⚡		
EX14M _*_	13/64 (.2031)		.375	.187			⚡	⚡	⚡						
EX15M _*_	7/32 (.2187)		.406	.187	⚡	⚡	⚡	⚡	⚡	⚡			⚡		
EX16M _*_	15/64 (.2343)		.406	.187			⚡	⚡	⚡						
EX17M _*_	1/4 (.2500)		.437	.187	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡		
EX18M _*_	17/64 (.2656)		.437	.250			⚡	⚡	⚡				⚡		
EX19M _*_	9/32 (.2812)		.437	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡		⚡		
EX20M _*_	19/64 (.2968)	-.0003 -.0006	.500	.250			⚡	⚡	⚡			⚡			
EX21M _*_	5/16 (.3125)		.500	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡		
EX22M _*_	21/64 (.3281)		.562	.250			⚡	⚡	⚡				⚡		
EX23M _*_	11/32 (.3437)		.562	.250	⚡		⚡	⚡	⚡	⚡			⚡		
EX24M _*_	23/64 (.3593)		.625	.250			⚡	⚡	⚡						
EX25M _*_	3/8 (.3750)		.625	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	
EX26M _*_	25/64 (.3906)		.625	.250			⚡	⚡							
EX27M _*_	13/32 (.4062)		.687	.250	⚡		⚡	⚡	⚡	⚡	⚡		⚡		
EX28M _*_	27/64 (.4218)		.687	.250			⚡	⚡							
EX29M _*_	7/16 (.4375)		.687	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡		⚡	⚡	
EX30M _*_	29/64 (.4531)		.687	.250			⚡	⚡							
EX31M _*_	15/32 (.4687)		.750	.250	⚡		⚡	⚡	⚡		⚡		⚡		
EX32M _*_	31/64 (.4843)		.750	.250			⚡	⚡	⚡						
EX33M _*_	1/2 (.5000)		.750	.250	⚡		⚡	⚡	⚡	⚡	⚡		⚡	⚡	⚡
EX34M _*_	17/32 (.5312)		.750	.250	⚡		⚡		⚡						
EX35M _*_	9/16 (.5625)		.812	.250	⚡		⚡		⚡		⚡		⚡		
EX37M _*_	5/8 (.6250)	-.0003	.875	.250	⚡		⚡		⚡		⚡		⚡	⚡	
EX39M _*_	11/16 (.6875)	-.0008	.937	.250	⚡		⚡		⚡		⚡		⚡		
EX41M _*_	3/4 (.7500)		1.000	.250	⚡		⚡		⚡		⚡		⚡	⚡	⚡
EX45M _*_	7/8 (.8750)		1.125	.250	⚡		⚡		⚡		⚡		⚡		
EX47M _*_	1" (1.0000)		1.250	.250	⚡		⚡		⚡		⚡		⚡	⚡	⚡

*HOW to order: Specify Item Number by combining Item Number Prefix with the length (L dimension) desired.
Omit spaces and dashes, as shown. Examples: EX9M10, EX33M10
Add "OS" at end of Item Number for .005" oversize diameters. Examples: EX3M6NSOS, EX25M14OS, EX33M10OS
NOTE: NS suffix shown in chart for No Shoulder for items EX3M through EX8M. Examples: EX3M6NS, EX7M10NS

KEY TO CHART
⚡ ⚡ Items in stock
2-3 week delivery
Contact us for quote

INCH Ejector Pins - H13 Nitrided - Shoulder



- Precision made of superior quality H13 type thermal shock resisting hotwork die steel
- Hot-forged heads provide uniform grain flow, higher tensile strength
- Core hardness 40-45 HRC
- Outside diameter nitrided to 65-74 HRC hardness and finished to minimize wear
- Heads annealed for easy machining

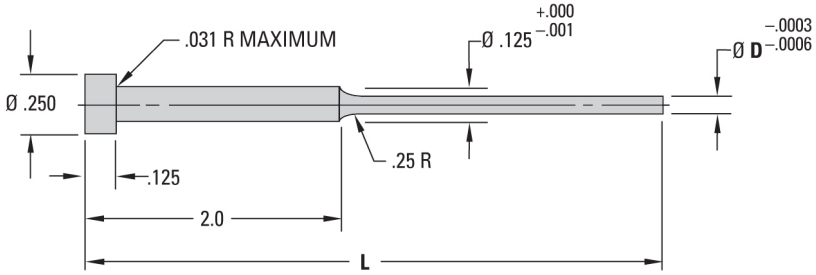
KEY TO CHART
- Items in stock
- 2-3 week delivery
- Contact us for quote

1/2" Shoulder Length – EX

ITEM NUMBER PREFIX	Ø D PIN DIA	L = LENGTH 6 D STD	6 D .005 OVER SIZE	10 D STD	10 D .005 OVER SIZE	14 D STD
EX2M_*_12SH	1/32 (.0312)	⚡	⚡			
EX3M_*_12SH	3/64 (.0468)	⚡		⚡	⚡	⚡
EX5M_*_12SH	1/16 (.0625)	⚡		⚡	⚡	⚡
EX6M_*_12SH	5/64 (.0781)	⚡		⚡	⚡	⚡
EX7M_*_12SH	3/32 (.0937)	⚡		⚡	⚡	⚡
EX8M_*_12SH	7/64 (.1093)	⚡		⚡	⚡	⚡

*HOW to order: Specify Item Number by combining Item Number Prefix and the length (L dimension) desired.
- Omit spaces and dashes, as shown. Examples: EX2M612SH, EX8M1412SH
- Add "OS" for .005" oversize diameters. Examples: EX3M612SHOS, EX3M612SHOS

NOTE: 12SH suffix shown in chart for 1/2" Shoulder length. Examples: EX3M612SH, EX7M1012SH



2" Shoulder Length – EX

ITEM NUMBER PREFIX	Ø D PIN DIA	L = LENGTH 6 D STD	6 D .005 OVER SIZE	10 D STD	10 D .005 OVER SIZE	14 D STD
EX2M_*_	1/32 (.0312)	⚡	⚡			
EX3M_*_	3/64 (.0468)	⚡		⚡	⚡	⚡
EX5M_*_	1/16 (.0625)	⚡		⚡	⚡	⚡
EX6M_*_	5/64 (.0781)	⚡		⚡	⚡	⚡
EX7M_*_	3/32 (.0937)	⚡		⚡	⚡	⚡
EX8M_*_	7/64 (.1093)	⚡		⚡	⚡	⚡

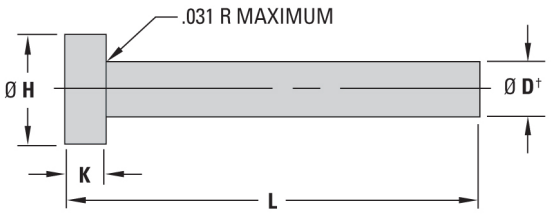
NOTE: For 2" Shoulder Length, no suffix should be used (see example

*HOW to order: Specify Item Number by combining Item Number Prefix and the length (L dimension) desired.
- Omit spaces and dashes, as shown. Examples: EX2M6, EX8M14
- Add "OS" for .005" oversize diameters. Examples: EX2M6OS, EX5M10OS, EX8M10OS

NOTE: For 2" Shoulder, no suffix is used. Examples: EX3M6, EX7M10

KEY TO CHART
- Items in stock
- 2-3 week delivery
- Contact us for quote

INCH High-Hardness Ejector Pins
H-13 Nitrided - Straight



- Higher core hardness makes the THX pins ideal for use in die cast dies or other high temperature applications
- Core hardness of 50-55 HRC minimizes nicking, dishing and bending
- Non-chipping surface treatment of 65-74 HRC alleviates flashing
- Annealed and finished heads permit easy machining
- Centerless ground D diameter

INCH High-Hardness Ejector Pins – THX

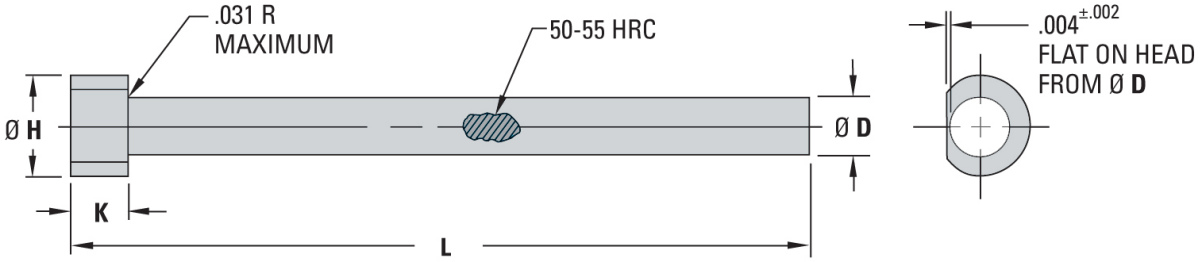
ITEM NUMBER PREFIX	Ø D PIN DIA	D† PIN DIA TOLERANCES	H HEAD DIA	K HEAD THICK	L = LENGTH 06 D STD	06 D .005 OVER-SIZE	10 D STD	10 D .005 OVER-SIZE	14 D STD	14 D .005 OVER-SIZE	18 D STD
THX03_*_NS	3/64 (.0468)		.250	.125	⚡	⚡					
THX05_*_NS	1/16 (.0625)		.250	.125	⚡	⚡					
THX06_*_NS	5/64 (.0781)	–.0003 –.0006	.250	.125	⚡		⚡	⚡			
THX07_*_NS	3/32 (.0937)		.250	.125	⚡	⚡	⚡	⚡			
THX08_*_NS	7/64 (.1093)		.250	.125	⚡		⚡	⚡			
THX09_*_	1/8 (.1250)		.250	.125	⚡	⚡	⚡	⚡	⚡	⚡	
THX10_*_	9/64 (.1406)		.250	.125			⚡	⚡	⚡		
THX11_*_	5/32 (.1562)		.281	.156	⚡	⚡	⚡	⚡	⚡	⚡	
THX12_*_	11/64 (.1718)		.343	.187			⚡	⚡	⚡		
THX13_*_	3/16 (.1875)		.375	.187	⚡	⚡	⚡	⚡	⚡	⚡	
THX14_*_	13/64 (.2031)		.375	.187			⚡	⚡	⚡		
THX15_*_	7/32 (.2187)		.406	.187	⚡	⚡	⚡	⚡	⚡	⚡	
THX16_*_	15/64 (.2343)		.406	.187			⚡	⚡	⚡		
THX17_*_	1/4 (.2500)		.437	.187	⚡	⚡	⚡	⚡	⚡	⚡	⚡
THX18_*_	17/64 (.2656)		.437	.250			⚡	⚡	⚡		
THX19_*_	9/32 (.2812)		.437	.250	⚡	⚡	⚡	⚡	⚡	⚡	
THX20_*_	19/64 (.2968)	–.0003	.500	.250			⚡	⚡	⚡		
THX21_*_	5/16 (.3125)	–.0006	.500	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡
THX22_*_	21/64 (.3281)		.562	.250			⚡	⚡	⚡		
THX23_*_	11/32 (.3437)		.562	.250	⚡		⚡	⚡	⚡	⚡	
THX24_*_	23/64 (.3593)		.625	.250			⚡	⚡	⚡		
THX25_*_	3/8 (.3750)		.625	.250	⚡	⚡	⚡	⚡	⚡	⚡	⚡
THX26_*_	25/64 (.3906)		.625	.250			⚡	⚡			
THX27_*_	13/32 (.4062)		.687	.250	⚡		⚡	⚡	⚡	⚡	
THX28_*_	27/64 (.4218)		.687	.250			⚡	⚡			
THX29_*_	7/16 (.4375)		.687	.250	⚡	⚡	⚡	⚡	⚡	⚡	
THX30_*_	29/64 (.4531)		.687	.250			⚡	⚡			
THX31_*_	15/32 (.4687)		.750	.250	⚡		⚡		⚡		
THX32_*_	31/64 (.4843)		.750	.250			⚡	⚡	⚡		
THX33_*_	1/2 (.5000)		.750	.250	⚡		⚡	⚡	⚡	⚡	⚡
THX34_*_	17/32 (.5312)		.750	.250	⚡		⚡		⚡		
THX35_*_	9/16 (.5625)		.812	.250	⚡		⚡		⚡		
THX37_*_	5/8 (.6250)	–.0003	.875	.250	⚡		⚡		⚡		⚡
THX39_*_	11/16 (.6875)	–.0008	.937	.250	⚡		⚡		⚡		
THX41_*_	3/4 (.7500)		1.000	.250	⚡		⚡		⚡		⚡
THX45_*_	7/8 (.8750)		1.125	.250	⚡		⚡		⚡		
THX47_*_	1" (1.0000)		1.250	.250	⚡		⚡		⚡		⚡

*HOW to order: Specify Item Number by combining Item Number Prefix and the length (L dimension) desired.
Omit spaces & dashes, as shown. Examples: THX0910, THX4118
Precede 6" length with a zero. Examples: THX0906, THX3306
Add "OS" for .005" oversize diameters. Examples: THX0306NSOS, THX0906OS, THX2514OS, THX3310OS
NOTE: NS suffix shown in chart for No Shoulder for items THX03 through THX08. Examples: THX306NS, THX710NS

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us for quote

Keyed Ejector Pins





Keyed Ejector Pins – THXK

Ø D PIN DIAMETER FRAC./DEC.	Ø D TOLERANCE	ITEM NUMBER	L LENGTH	Ø H HEAD DIA	Ø K HEAD THICKNESS
(1/8) .1250	-.0003 -.0006	THXK0906 THXK0914	6.00 14.00	.250	.125
(9/64) .1406	-.0003 -.0006	THXK1014	14.00	.250	.125
(5/32) .1562	-.0003 -.0006	THXK1114	14.00	.281	.156
(3/16) .1875	-.0003 -.0006	THXK1306 THXK1314	6.00 14.00	.375	.187
(7/32) .2187	-.0003 -.0006	THXK1514	14.00	.406	.187
(1/4) .2500	-.0003 -.0006	THXK1706 THXK1714	6.00 14.00	.437	.187
(5/16) .3125	-.0003 -.0006	THXK2106 THXK2114	6.00 14.00	.500	.250
(3/8) .3750	-.0003 -.0006 -.0003 -.0008	THXK2506 THXK2514 THXK2525	6.00 14.00 25.00	.625	.250
(7/16) .4375	-.0003 -.0006	THXK2914	14.00	.687	.250
(1/2) .5000	-.0003 -.0008	THXK3314	14.00	.750	.250
(5/8) .6250	-.0003 -.0008	THXK3714	14.00	.875	.250
(3/4) .7500	-.0003 -.0008	THXK4114 THXK4125	14.00 25.00	1.000	.250
(1") 1.000	-.0003 -.0008	THXK4714 THXK4725	14.00 25.00	1.250	.250

Information KEY:
D = Pin Diameter
H = Head Diameter
K = Head Thickness
L = Length
Material: H-13 / 1.2344 / SKD61
Surface Treatment: Nitrided
Surface Hardness: 65 min. HRC
Core Hardness: 50-55 HRC

- Precision-machined flat on head keeps pin from rotating
- Made from superior quality thermal shock-resisting hotwork steel
- Core hardness of 50-55 HRC makes these pins ideal for use in die-cast dies or other high temperature applications
- Annealed hot-forged heads provide uniform grain flow while allowing for easier machining

INCH Close Tolerance M-2 Through-Hardened Ejector Pins

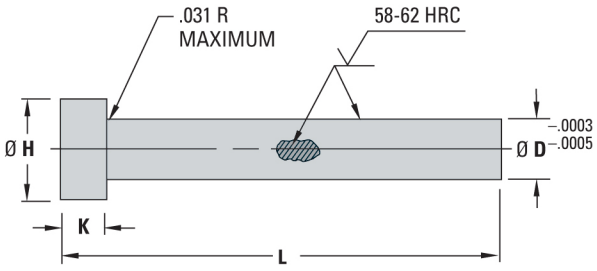
Information KEY:
D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
S = Shoulder Length
Tolerance on Ø D: -.0003/-.0005
Material: M2 / 1.3343 / SKH51
Heat Treat: Hardened 58-62 HRC
Surface Treatment: None (Through-Hard)

- Industry-leading .0002" tolerance band
- Centerless ground D diameter
- Precision made of superior quality M-2 high-speed tool steel
- Superior wear resistance
- Exceptional performance at elevated temperatures
- Hot-forged heads provide uniform grain flow, higher tensile strength



Straight Ejector Pins – EJP-IMH

ITEM NUMBER PREFIX (WITH DIAMETER)	Ø D PIN BODY DIAMETER	Ø H HEAD DIAMETER	K HEAD THICKNESS	L = 06 LENGTH (INCHES)	L = 10 LENGTH (INCHES)
EJP-IMH-0062-_*_	1/16 (0.0625)	.250	.125	⚡	
EJP-IMH-0093-_*_	3/32 (0.0937)	.250	.125	⚡	
EJP-IMH-0125-_*_	1/8 (0.1250)	.250	.125	⚡	⚡
EJP-IMH-0187-_*_	3/16 (0.1875)	.375	.187		⚡
EJP-IMH-0250-_*_	1/4 (0.2500)	.437	.187	⚡	⚡



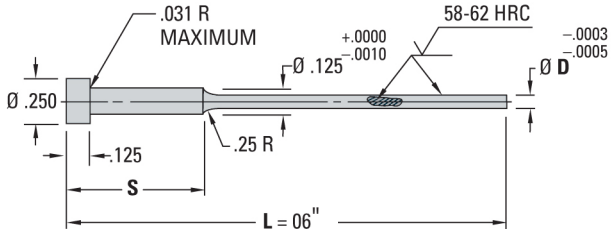
*HOW to order: specify Item Number by adding L length in inches (06 or 10) after Item Number Prefix. n Include zeros and dashes, as shown.
Examples: EJP-IMH-0062-06; EJP-IMH-0125-10; EJP-IMH-0250-10

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us for quote



2" Shoulder Ejector Pins – EJP-IMH

ITEM NUMBER (WITH DIAMETER, LENGTH & SHOULDER LENGTH)	Ø D PIN BODY DIAMETER	L = 06 LENGTH (INCHES)	S SHOULDER LENGTH
EJP-IMH-0062-06-200	1/16 (0.0625)	⚡	2.00
EJP-IMH-0078-06-200	5/64 (0.0781)	⚡	2.00
EJP-IMH-0093-06-200	3/32 (0.0937)	⚡	2.00



*HOW to order: Specify Item Number including zeros and dashes, as shown.
Examples: EJP-IMH-0062-06-200; EJP-IMH-0093-06-200

All dimensions are specified in inches.

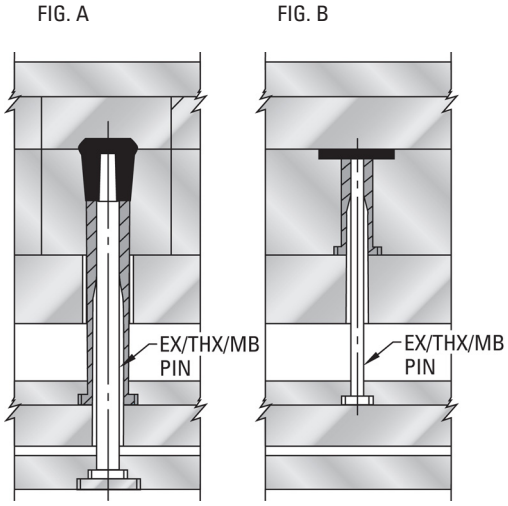
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us for quote

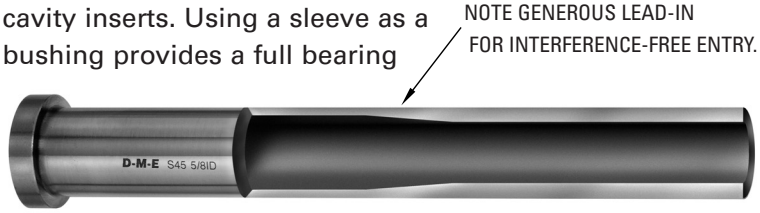
INCH Ejector Sleeves - Nitrided O.D.

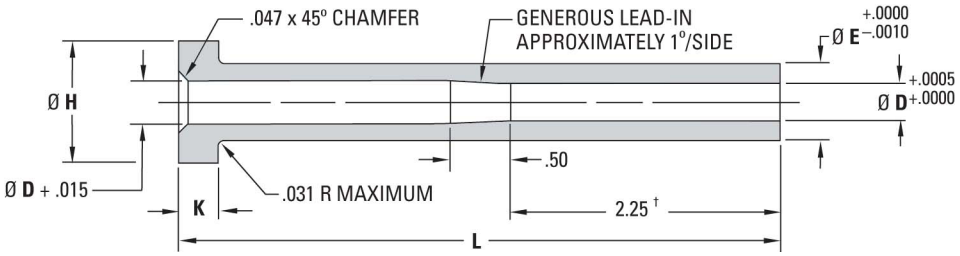
Ejector sleeve applications

Figure A shows a typical Ejector Sleeve application for die casting where the sleeve is used to eject the piece part.

Figure B shows an application where the sleeve serves as a bushing for the ejector pin. This allows replacement without machining if wear occurs.
This practice is also desirable where
the ejector pin is located between cavity inserts. Using a sleeve as a bushing provides a full bearing







- Precision made of superior quality thermal shock resisting hotwork die steel
- Hot-forged heads provide uniform grain flow, higher tensile strength
- Outside diameter nitrided to 65-74 HRC hardness and finished to minimize wear
- Centerless ground and polished outer diameter
- Inside bearing diameter is 30-35 HRC hardness and finished honed
- Lead-in taper designed to allow interference-free entry of the ejector pin into the sleeve

INCH Ejector Sleeves – S

ITEM NUMBER PREFIX	Ø D I.D.		Ø E O.D.		Ø H HEAD DIA	K HEAD THICK	L = LENGTH										
							3	4	5	6	7	8	9	10	11	12	14
†S13M_*_	3/32	(.0937)	3/16	(.1875)	.375	.187	⚡	⚡	⚡	⚡	⚡						
†S15M_*_	1/8	(.1250)	7/32	(.2187)	.406	.187	⚡	⚡	⚡	⚡	⚡						
S17M_*_	5/32	(.1562)	1/4	(.2500)	.437	.187		⚡	⚡	⚡	⚡	⚡	⚡	⚡			
S21M_*_	3/16	(.1875)	5/16	(.3125)	.500	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S23M_*_	7/32	(.2187)	11/32	(.3437)	.562	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡			⚡
S25M_*_	1/4	(.2500)	3/8	(.3750)	.625	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S29M_*_	5/16	(.3125)	7/16	(.4375)	.687	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S33M_*_	3/8	(.3750)	1/2	(.5000)	.750	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S37M_*_	7/16	(.4375)	5/8	(.6250)	.875	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S39M_*_	1/2	(.5000)	11/16	(.6875)	.937	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S41M_*_	9/16	(.5625)	3/4	(.7500)	1.000	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S45M_*_	5/8	(.6250)	7/8	(.8750)	1.125	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
S47M_*_	3/4	(.7500)	1	(1.0000)	1.250	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡

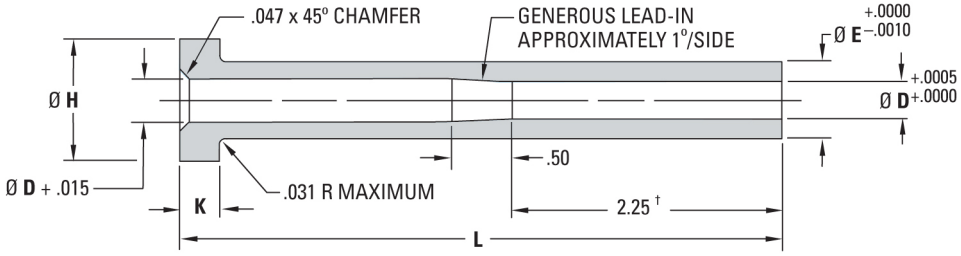
†S13 and S15 have a 1.75 bearing length.

*HOW to order: Combine Item Prefix and the length (L dimension) desired.
Examples: S15M6, S39M10

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact usfor quote

INCH Ejector Sleeves - Nitrided O.D. & I.D.





- Precision made of superior quality thermal shock resisting hotwork die steel
- Hot-forged heads provide uniform grain flow, higher tensile strength
- Outside diameter nitrided to 65-74 HRC hardness and finished to minimize wear
- Centerless ground and polished outer diameter
- Inside bearing diameter is nitrided to 65-74 HRC hardness and finished honed
- Lead-in taper designed to allow interference-free entry of the ejector pin into the sleeve
- SND sleeve I.D. is nitrided for prolonged wear resistance and improved lubricity

INCH Ejector Sleeves – SND

ITEM NUMBER PREFIX	Ø D I.D.	Ø E O.D.	Ø H HEAD DIA	K HEAD THICK	L = LENGTH 3	4	5	6	7	8	9	10	11	12
†SND13_*_	3/32 (.0937)	3/16 (.1875)	.375	.187	⚡	⚡	⚡	⚡	⚡					
†SND15_*_	1/8 (.1250)	7/32 (.2187)	.406	.187	⚡	⚡	⚡	⚡	⚡					
SND17_*_	5/32 (.1562)	1/4 (.2500)	.437	.187		⚡	⚡	⚡	⚡	⚡	⚡	⚡		
SND21_*_	3/16 (.1875)	5/16 (.3125)	.500	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND23_*_	7/32 (.2187)	11/32 (.3437)	.562	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡		
SND25_*_	1/4 (.2500)	3/8 (.3750)	.625	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND29_*_	5/16 (.3125)	7/16 (.4375)	.687	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND33_*_	3/8 (.3750)	1/2 (.5000)	.750	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND37_*_	7/16 (.4375)	5/8 (.6250)	.875	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND39_*_	1/2 (.5000)	11/16 (.6875)	.937	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND41_*_	9/16 (.5625)	3/4 (.7500)	1.000	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND45_*_	5/8 (.6250)	7/8 (.8750)	1.125	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡
SND47_*_	3/4 (.7500)	1 (1.0000)	1.250	.250		⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡	⚡

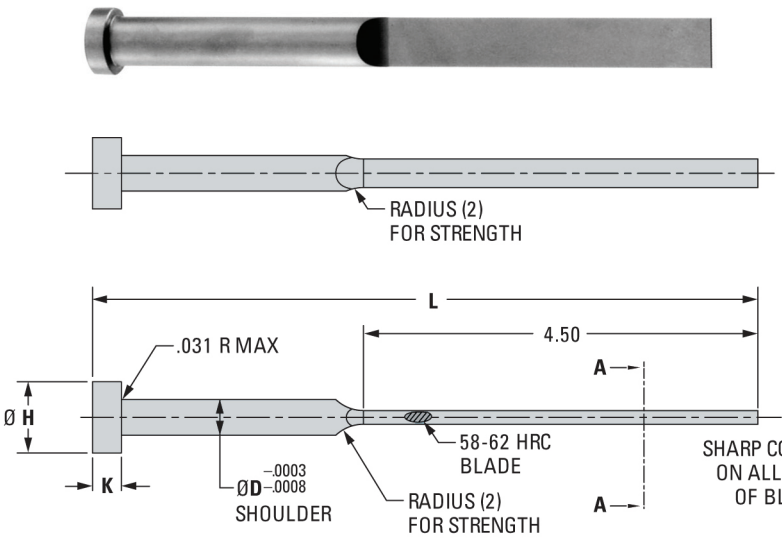
†S13 and S15 have a 1.75 bearing length.

All sleeves are for use with DME Inch Ejector Pins.

*HOW to order: Combine Item Prefix and the length (L dimension) desired.
n Precede single digit lengths with a zero.
Examples: SND2506, SND1710

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us for quote

INCH Ejector Blades



- Blade thickness and width are held to close tolerance: +.0000/-.0003
- Precision made of superior quality M2 high-speed tool steel
- Through-hardened to 58-62 HRC for superiorwear resistance
- Heads annealed for easy machining
- One-piece construction for increased strength and rigidi

Information KEY:
D = Shoulder Diameter
H = Head Diameter
K = Head Thickness
L = Overall Length
T = Blade Thickness
W = Blade Width
Material: M2 / 1.3343 / SKH51
Surface Treatment: None (Through-Hard)

INCH Ejector Blades – EJB-IMH

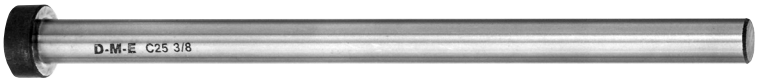
ITEM NUMBER	T BLADE THICKNESS	W BLADE WIDTH	Ø D SHOULDER DIAMETER	Ø H HEAD DIAMETER	K HEAD THICKNESS	L OVERALL LENGTH
EJB-IMH-024-100-065	0.0240	0.1000	0.1250	0.250	0.125	6.50
EJB-IMH-032-100-065	0.0320	0.1000	0.1250	0.250	0.125	6.50
EJB-IMH-032-100-075	0.0320	0.1000	0.1250	0.250	0.125	7.50
EJB-IMH-046-100-065	0.0460	0.1000	0.1250	0.250	0.125	6.50
EJB-IMH-046-100-075	0.0460	0.1000	0.1250	0.250	0.125	7.50
EJB-IMH-024-140-065	0.0240	0.1400	0.1562	0.281	0.156	6.50
EJB-IMH-032-140-065	0.0320	0.1400	0.1562	0.281	0.156	6.50
EJB-IMH-046-140-075	0.0320	0.1400	0.1562	0.281	0.156	7.50
EJB-IMH-032-140-085	0.0320	0.1400	0.1562	0.281	0.156	8.50
EJB-IMH-046-140-065	0.0460	0.1400	0.1562	0.281	0.156	6.50
EJB-IMH-046-140-075	0.0460	0.1400	0.1562	0.281	0.156	7.50
EJB-IMH-046-140-085	0.0460	0.1400	0.1562	0.281	0.156	8.50
EJB-IMH-024-172-065	0.0240	0.1720	0.1875	0.375	0.187	6.50
EJB-IMH-032-172-065	0.0320	0.1720	0.1875	0.375	0.187	6.50
EJB-IMH-032-172-075	0.0320	0.1720	0.1875	0.375	0.187	7.50
EJB-IMH-032-172-085	0.0320	0.1720	0.1875	0.375	0.187	8.50
EJB-IMH-046-172-065	0.0460	0.1720	0.1875	0.375	0.187	6.50
EJB-IMH-046-172-075	0.0460	0.1720	0.1875	0.375	0.187	7.50
EJB-IMH-046-172-085	0.0460	0.1720	0.1875	0.375	0.187	8.50
EJB-IMH-062-172-065	0.0620	0.1720	0.1875	0.375	0.187	6.50
EJB-IMH-062-172-075	0.0620	0.1720	0.1875	0.375	0.187	7.50
EJB-IMH-062-172-085	0.0620	0.1720	0.1875	0.375	0.187	8.50
EJB-IMH-032-234-065	0.0320	0.2340	0.2500	0.437	0.187	6.50
EJB-IMH-032-234-075	0.0320	0.2340	0.2500	0.437	0.187	7.50
EJB-IMH-032-234-085	0.0320	0.2340	0.2500	0.437	0.187	8.50
EJB-IMH-046-234-065	0.0460	0.2340	0.2500	0.437	0.187	6.50
EJB-IMH-046-234-075	0.0460	0.2340	0.2500	0.437	0.187	7.50
EJB-IMH-046-234-085	0.0460	0.2340	0.2500	0.437	0.187	8.50
EJB-IMH-062-234-065	0.0620	0.2340	0.2500	0.437	0.187	6.50
EJB-IMH-062-234-075	0.0620	0.2340	0.2500	0.437	0.187	7.50
EJB-IMH-062-234-085	0.0620	0.2340	0.2500	0.437	0.187	8.50
EJB-IMH-062-234-095	0.0620	0.2340	0.2500	0.437	0.187	9.50
EJB-IMH-032-296-065	0.0320	0.2960	0.3125	0.500	0.250	6.50
EJB-IMH-032-296-075	0.0320	0.2960	0.3125	0.500	0.250	7.50
EJB-IMH-032-296-085	0.0320	0.2960	0.3125	0.500	0.250	8.50
EJB-IMH-032-296-095	0.0320	0.2960	0.3125	0.500	0.250	9.50

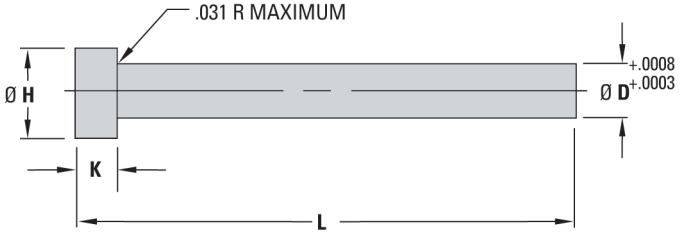
All items in stock. Specify item number and quantity.

INCH Ejector Blades

ITEM NUMBER	T BLADE THICKNESS	W BLADE WIDTH	Ø D SHOULDER DIAMETER	Ø H HEAD DIAMETER	K HEAD THICKNESS	L OVERALL LENGTH
EJB-IMH-046-296-065	0.0460	0.2960	0.3125	0.500	0.250	6.50
EJB-IMH-046-296-075	0.0460	0.2960	0.3125	0.500	0.250	7.50
EJB-IMH-046-296-085	0.0460	0.2960	0.3125	0.500	0.250	8.50
EJB-IMH-046-296-095	0.0460	0.2960	0.3125	0.500	0.250	9.50
EJB-IMH-062-296-065	0.0620	0.2960	0.3125	0.500	0.250	6.50
EJB-IMH-062-296-075	0.0620	0.2960	0.3125	0.500	0.250	7.50
EJB-IMH-062-296-085	0.0620	0.2960	0.3125	0.500	0.250	8.50
EJB-IMH-062-296-095	0.0620	0.2960	0.3125	0.500	0.250	9.50
EJB-IMH-078-296-065	0.0780	0.2960	0.3125	0.500	0.250	6.50
EJB-IMH-078-296-075	0.0780	0.2960	0.3125	0.500	0.250	7.50
EJB-IMH-078-296-085	0.0780	0.2960	0.3125	0.500	0.250	8.50
EJB-IMH-078-296-095	0.0780	0.2960	0.3125	0.500	0.250	9.50
EJB-IMH-032-359-065	0.0320	0.3590	0.3750	0.625	0.250	6.50
EJB-IMH-032-359-075	0.0320	0.3590	0.3750	0.625	0.250	7.50
EJB-IMH-032-359-085	0.0320	0.3590	0.3750	0.625	0.250	8.50
EJB-IMH-032-359-095	0.0320	0.3590	0.3750	0.625	0.250	9.50
EJB-IMH-046-359-065	0.0460	0.3590	0.3750	0.625	0.250	6.50
EJB-IMH-046-359-075	0.0460	0.3590	0.3750	0.625	0.250	7.50
EJB-IMH-046-359-085	0.0460	0.3590	0.3750	0.625	0.250	8.50
EJB-IMH-046-359-095	0.0460	0.3590	0.3750	0.625	0.250	9.50
EJB-IMH-062-359-065	0.0620	0.3590	0.3750	0.625	0.250	6.50
EJB-IMH-062-359-075	0.0620	0.3590	0.3750	0.625	0.250	7.50
EJB-IMH-062-359-085	0.0620	0.3590	0.3750	0.625	0.250	8.50
EJB-IMH-062-359-095	0.0620	0.3590	0.3750	0.625	0.250	9.50
EJB-IMH-078-359-065	0.0780	0.3590	0.3750	0.625	0.250	6.50
EJB-IMH-078-359-075	0.0780	0.3590	0.3750	0.625	0.250	7.50
EJB-IMH-078-359-085	0.0780	0.3590	0.3750	0.625	0.250	8.50
EJB-IMH-078-359-095	0.0780	0.3590	0.3750	0.625	0.250	9.50
EJB-IMH-094-422-065	0.0940	0.4220	0.4375	0.687	0.250	6.50
EJB-IMH-094-422-075	0.0940	0.4220	0.4375	0.687	0.250	7.50
EJB-IMH-094-422-085	0.0940	0.4220	0.4375	0.687	0.250	8.50
EJB-IMH-094-422-095	0.0940	0.4220	0.4375	0.687	0.250	9.50
EJB-IMH-078-484-065	0.0780	0.4840	0.5000	0.750	0.250	6.50
EJB-IMH-078-484-075	0.0780	0.4840	0.5000	0.750	0.250	7.50
EJB-IMH-078-484-085	0.0780	0.4840	0.5000	0.750	0.250	8.50
EJB-IMH-078-484-095	0.0780	0.4840	0.5000	0.750	0.250	9.50
EJB-IMH-094-484-065	0.0940	0.4840	0.5000	0.750	0.250	6.50
EJB-IMH-094-484-075	0.0940	0.4840	0.5000	0.750	0.250	7.50
EJB-IMH-094-484-085	0.0940	0.4840	0.5000	0.750	0.250	8.50
EJB-IMH-094-484-095	0.0940	0.4840	0.5000	0.750	0.250	9.50
EJB-IMH-078-547-065	0.0780	0.5470	0.5625	0.812	0.250	6.50
EJB-IMH-078-547-075	0.0780	0.5470	0.5625	0.812	0.250	7.50
EJB-IMH-078-547-085	0.0780	0.5470	0.5625	0.812	0.250	8.50
EJB-IMH-078-547-095	0.0780	0.5470	0.5625	0.812	0.250	9.50
EJB-IMH-094-547-065	0.0940	0.5470	0.5625	0.812	0.250	6.50
EJB-IMH-094-547-075	0.0940	0.5470	0.5625	0.812	0.250	7.50
EJB-IMH-094-547-085	0.0940	0.5470	0.5625	0.812	0.250	8.50
EJB-IMH-094-547-095	0.0940	0.5470	0.5625	0.812	0.250	9.50
EJB-IMH-078-609-065	0.0780	0.6090	0.6250	0.875	0.250	6.50
EJB-IMH-078-609-075	0.0780	0.6090	0.6250	0.875	0.250	7.50
EJB-IMH-078-609-085	0.0780	0.6090	0.6250	0.875	0.250	8.50
EJB-IMH-078-609-095	0.0780	0.6090	0.6250	0.875	0.250	9.50
EJB-IMH-094-609-065	0.0940	0.6090	0.6250	0.875	0.250	6.50
EJB-IMH-094-609-075	0.0940	0.6090	0.6250	0.875	0.250	7.50
EJB-IMH-094-609-085	0.0940	0.6090	0.6250	0.875	0.250	8.50
EJB-IMH-094-609-095	0.0940	0.6090	0.6250	0.875	0.250	9.50

INCH Core Pins - H13- Standard Medium Hardness





- Precision made of superior quality hotwork die steel standard hardness 30-35 HRC
- Heads are hot-forged for uniform grain flow, higher tensile strength, then annealed to permit easier machining and stamping
- +.0008"/+.0003" tolerance on pin diameter ensures a close fit for coring purposes
- Pin body and head are finish ground
- Centerless ground and polished outer diameter

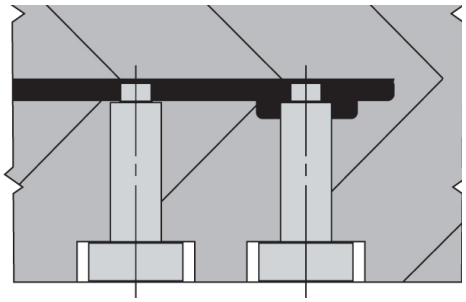
INCH Core Pins – C

ITEM PREFIX	Ø D PIN DIA	Ø H HEAD DIA	K HEAD THICK	L = LENGTH 3†	6	10	14
C7M_*_	3/32 (.0937)	.250	.125	⚡	⚡	⚡	
C8M_*_	7/64 (.1093)	.250	.125	⚡	⚡	⚡	
C9M_*_	1/8 (.1250)	.250	.125	⚡	⚡	⚡	⚡
C10M_*_	9/64 (.1406)	.250	.125	⚡	⚡	⚡	⚡
C11M_*_	5/32 (.1562)	.281	.156	⚡	⚡	⚡	⚡
C12M_*_	11/64 (.1718)	.343	.187	⚡	⚡	⚡	⚡
C13M_*_	3/16 (.1875)	.375	.187	⚡	⚡	⚡	⚡
C14M_*_	13/64 (.2031)	.375	.187	⚡	⚡	⚡	⚡
C15M_*_	7/32 (.2187)	.406	.187	⚡	⚡	⚡	⚡
C17M_*_	1/4 (.2500)	.437	.187	⚡	⚡	⚡	⚡
C19M_*_	9/32 (.2812)	.437	.250	⚡	⚡	⚡	⚡
C21M_*_	5/16 (.3125)	.500	.250	⚡	⚡	⚡	⚡
C23M_*_	11/32 (.3437)	.562	.250	⚡	⚡	⚡	⚡
C25M_*_	3/8 (.3750)	.625	.250	⚡	⚡	⚡	⚡
C27M_*_	13/32 (.4062)	.687	.250	⚡	⚡	⚡	⚡
C29M_*_	7/16 (.4375)	.687	.250	⚡	⚡	⚡	⚡
C31M_*_	15/32 (.4687)	.750	.250	⚡	⚡	⚡	⚡
C33M_*_	1/2 (.5000)	.750	.250	⚡	⚡	⚡	⚡
C35M_*_	9/16 (.5625)	.812	.250		⚡	⚡	⚡
C37M_*_	5/8 (.6250)	.875	.250		⚡	⚡	⚡
C41M_*_	3/4 (.7500)	1.000	.250		⚡	⚡	⚡

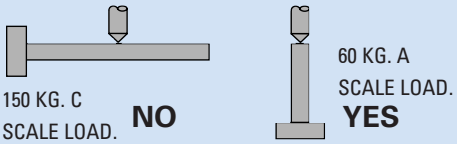
†Heads of 3"-length pins are not annealed. If annealed heads on 3"-length pins are required, they must be special ordered. (Alternately, you may purchase 6" pins and cut to required length.)

*HOW to order: Combine Item Number Prefix and the length (L dimension) desired.
Examples: C9M3, C33M10

Typical application



Hardness checking guidelines

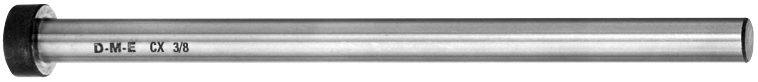


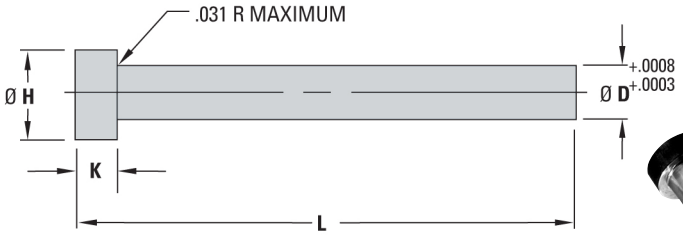
If checking hardness of core pins, do not use method "NO" above, since it will provide an inaccurately low reading. The preferred method is to stand the pin on its head and check the cut end using the A scale, 60 Kg. load as shown above.

PRECAUTIONS:
The cut end must be parallel to head end, with
stem length of 2" minimum. Use cutting fluid to
avoid overheating and localized annealing.

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

INCH Core Pins - High Hardness







- Precision made of superior quality hotwork die steel in high hardness 50-55 HRC
- Heads are hot-forged for uniform grain flow, higher tensile strength, then annealed to permit easier machining and stamping
- +.0008"/+.0003"- tolerance on pin diameter ensures a close fit for coring purposes
- Pin body and head are finish ground

INCH Core Pins – CX

ITEM PREFIX	Ø D PIN DIA		Ø H HEAD DIA	K HEAD THICK	LENGTH 3†	6	10	14
CX7M_*_	3/32	(.0937)	.250	.125	⚡	⚡	⚡	
CX8M_*_	7/64	(.1093)	.250	.125	⚡	⚡	⚡	
CX9M_*_	1/8	(.1250)	.250	.125	⚡	⚡	⚡	⚡
CX10M_*_	9/64	(.1406)	.250	.125	⚡	⚡	⚡	⚡
CX11M_*_	5/32	(.1562)	.281	.156	⚡	⚡	⚡	⚡
CX12M_*_	11/64	(.1718)	.343	.187	⚡	⚡	⚡	⚡
CX13M_*_	3/16	(.1875)	.375	.187	⚡	⚡	⚡	⚡
CX14M_*_	13/64	(.2031)	.375	.187	⚡	⚡	⚡	⚡
CX15M_*_	7/32	(.2187)	.406	.187	⚡	⚡	⚡	⚡
CX17M_*_	1/4	(.2500)	.437	.187	⚡	⚡	⚡	⚡
CX19M_*_	9/32	(.2812)	.437	.250	⚡	⚡	⚡	⚡
CX21M_*_	5/16	(.3125)	.500	.250	⚡	⚡	⚡	⚡
CX23M_*_	11/32	(.3437)	.562	.250	⚡	⚡	⚡	⚡
CX25M_*_	3/8	(.3750)	.625	.250	⚡	⚡	⚡	⚡
CX27M_*_	13/32	(.4062)	.687	.250	⚡	⚡	⚡	⚡
CX29M_*_	7/16	(.4375)	.687	.250	⚡	⚡	⚡	⚡
CX31M_*_	15/32	(.4687)	.750	.250	⚡	⚡	⚡	⚡
CX33M_*_	1/2	(.5000)	.750	.250	⚡	⚡	⚡	⚡
CX35M_*_	9/16	(.5625)	.812	.250		⚡	⚡	⚡
CX37M_*_	5/8	(.6250)	.875	.250		⚡	⚡	⚡
CX41M_*_	3/4	(.7500)	1.000	.250		⚡	⚡	⚡

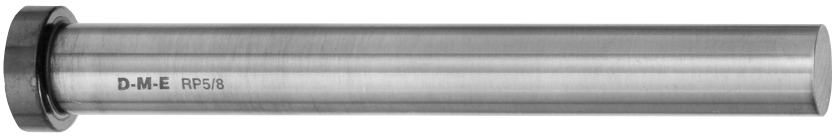
†Heads of 3"-length pins are not annealed. If annealed heads on 3"-length pins are required, they must be special ordered. (Alternately, you may purchase 6" pins and cut to required length.)

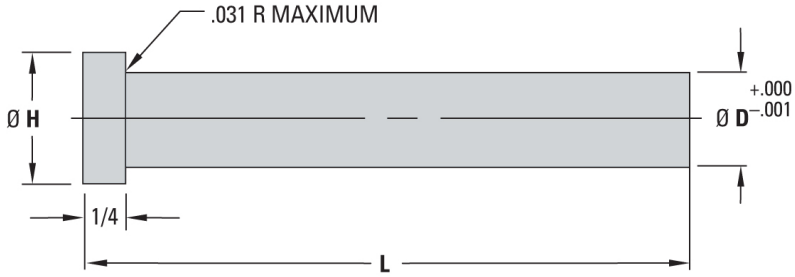
Specials available.
See "Special Pins and Sleeves."

*HOW to order: Combine Item Number Prefix and the length (L dimension) desired.
Examples: CX9M3, CX33M10

KEY TO CHART
- ⚡ Items in stock
- 2-3 week delivery
- Contact us for quote

INCH Return Pins





- Precision made of superior quality thermal shock resisting hotwork die steel
- Hot-forged heads provide uniform grain flow, higher tensile strength
- Outside diameter nitrided to 65-74 HRC hardness and finished to minimize wear
- Centerless ground and polished outer diameter

.500 (1/2") Diameter Series

ITEM NUMBER	Ø D PIN DIA	Ø H HEAD DIA	L PIN LENGTH
7410	.500	.750	3.563
7411			4.063
7412			4.563
7413			5.063
7414			5.563
7415			6.063
7416			6.563

For longer lengths, use EX33 Ejector Pins.

.625 (5/8") Diameter Series

ITEM NUMBER	Ø D PIN DIA	Ø H HEAD DIA	L PIN LENGTH
7510	.625	.875	4.063
7511			4.563
7512			5.063
7513			5.563
7514			6.063
7515			6.563
7516			7.063
7517			7.563
7518			8.063

For longer lengths, use EX37 Ejector Pins.

.750 (3/4") Diameter Series

ITEM NUMBER	Ø D PIN DIA	Ø H HEAD DIA	L PIN LENGTH
7610	.750	1.000	4.938
7611			5.438
7612			5.938
7613			6.438
7614			6.938
7615			7.438
7616			7.938
7617			8.438
7618			8.938
7619			9.438

For longer lengths, use EX41 Ejector Pins.

Use Item Number in charts above for ordering. All items in stock.



Custom Pins & Sleeves Quote Form

QUOTE FAX HOTLINES AVAILABLE or visit www.dme.net

United States: 888-808-4363 • Canada: 800-461-9965 • International: 248-398-7394

ONLINE FORM

Custom Pins

QUANTITY: _____

CHOOSE A PIN TYPE:

- ☐ EX (35 - 43 HRC CORE HARDNESS WITH 65 - 70 HRC CASE HARDNESS)
- ☐ THX (50 HRC - 55 HRC CORE HARDNESS WITH 65 - 70 HRC CASE HARDNESS)
- ☐ CX (50 - 55 HRC THROUGH HARD)
- ☐ C (30 - 35 HRC THROUGH HARD)

MATERIAL H-13 ☐

OTHER _____

HARDNESS _____ RC

NITRIDED YES ☐ NO ☐

COMMENTS _____

Custom Sleeves

QUANTITY: _____

☐ NITRIDE ON OD (S)

☐ NITRIDE ON OD + ID (SND)

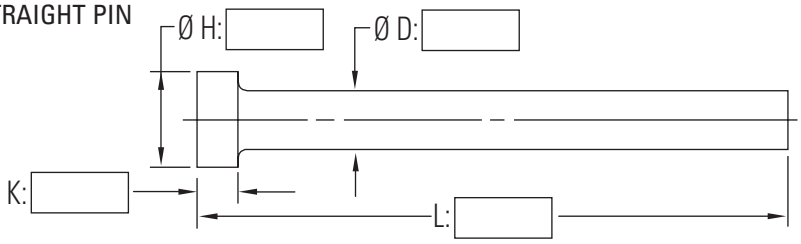
MATERIAL H-13 ☐

OTHER _____

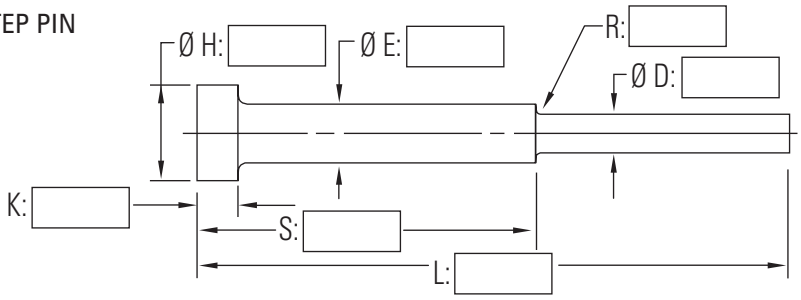
HARDNESS _____ RC

COMMENTS _____

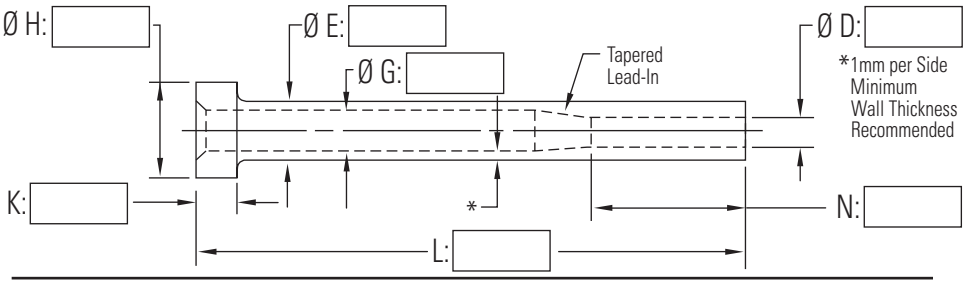
STRAIGHT PIN



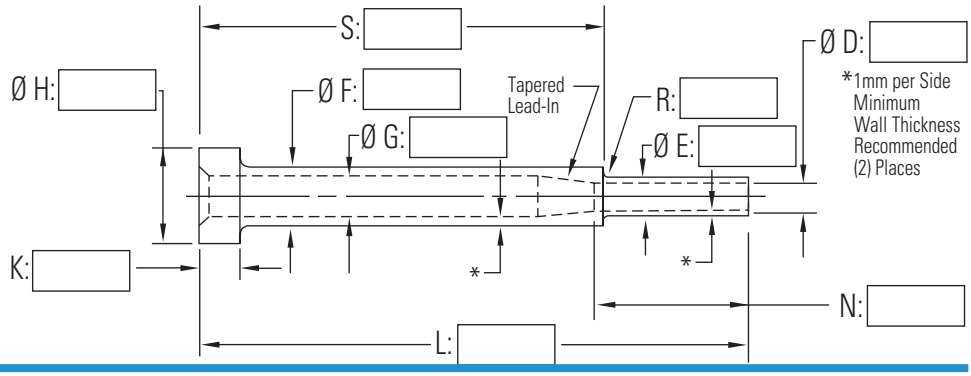
STEP PIN



SLEEVE



STEP SLEEVE



Company name: _____ DME account #: _____

Contact name: _____ P.O. #: _____

Phone: _____ FAX: _____

Address: _____ E-mail: _____

City: _____ State/Province: _____

ZIP/Postal Code: _____ Country: _____

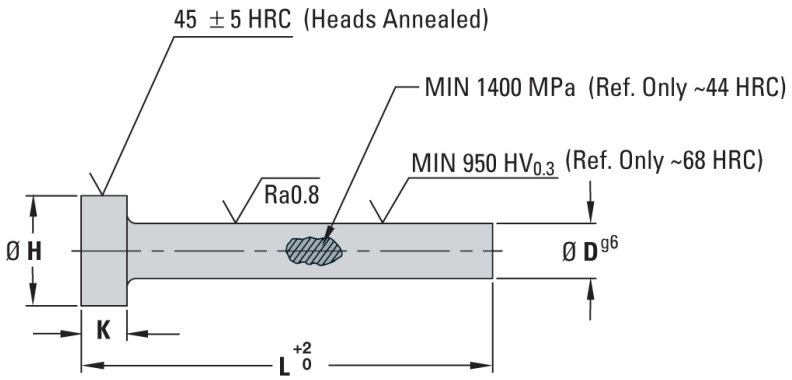
Shipping method:

- ☐ UPS Ground
- ☐ UPS 2nd Day Air
- ☐ UPS Next Day
- ☐ FedEx
- ☐ Other _____

DIN Ejector Pins - Nitrided

DIN Ejector Pins – EJP-EHN

Information KEY:
D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
Standard: DIN/ISO Type
Material: 1.2344 (AISI H13 Type) Steel
Surface Treatment: Nitrided
Max. Temp.: 500˚-550˚C (932˚-1022˚F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	H	K	L 0100	0125	0160	0200	0250	0315	0400	0500	0630	0800	1000
EJP-EHN (EA)*	01.2	3	1.5	■		■								
	01.5	3	2	■	■	■	■							
	02.0	4	2	■	■	⚡	■	■	■					
	02.2	4	2	■	■	■	■	■	■					
	02.5	5	2	■	■	■	■	■	■					
	02.7	5	3	■	■	■	■	■	■					
	03.0	6	3	■	■	⚡	⚡	⚡	■	■	■			
	03.2	6	3	■	■	■	■	■	■	■				
	03.5	7	3	■	■	■	■	■	■	■				
	03.7	7	3	■	■	■	■	■	■	■				
	04.0	8	3	■	■	⚡	⚡	⚡	⚡	■	■			
	04.2	8	3	■	■	■	■	■	■	■	■	■		
	04.5	8	3	■	■	■	■	■	■	■				
	05.0	10	3	■	■	⚡	■	⚡	■	⚡	■	■	■	
	05.2	10	3	■	■	■	■	■	■	■	■			
	05.5	10	3	■	■	■	■	■	■	■	■			
	06.0	12	5	■	■	⚡	■	⚡	■	⚡	⚡	■	■	■
	06.2	12	5	■	■	■	■	■	■	■	■	■		
	06.5	12	5	■	■	■	■	■	■	■	■			
	07.0	12	5	■	■	■	■	■	■	■	■	■		
	08.0	14	5	■	■	⚡	■	⚡	■	⚡	⚡	⚡	■	■
	08.2	14	5	■	■	■	■	■	■	■	■	■		
	08.5	14	5	■	■	■	■	■	■	■	■	■		
	09.0	14	5	■	■	■	■	■	■	■	■	■		
	10.0	16	5	■	■	⚡	■	⚡	■	⚡	■	⚡	■	■
	10.2	16	5	■	■	■	■	■	■	■	■	■		
	10.5	16	5	■	■	■	■	■	■	■	■	■		
	11.0	16	5	■	■	■	■	■	■	■	■	■		
	12.0	18	7	■	■	⚡	■	⚡	■	⚡	■	⚡	■	■
	12.2	18	7	■	■	■	■	■	■	■	■	■		
	12.5	18	7	■	■	■	■	■	■	■	■	■	■	
	14.0	22	7	■	■	■	■	■	■	■	■	■	■	■
	16.0	22	7	■	■	⚡	■	⚡	■	⚡	■	⚡	■	■
	18.0	24	7	■	■	■	■	■	■	■	■	■	■	■
	20.0	26	8	■	■	■	■	⚡	■	⚡	■	⚡	■	■
	25.0	32	10			■	■	■	■	⚡	■	⚡	■	■
	32.0	40	10			■	■	■	■	■	■	■	■	■

* "(EA)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix EJP-EHN - D - L

EXAMPLE: PREFIX D L EJP-EHN-030-0160

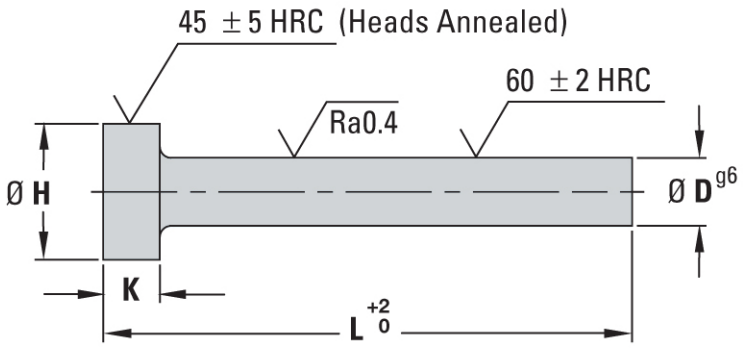
EXAMPLE: PREFIX D L EJP-EHN-120-0630

KEY TO CHART
⚡ Items in stock
■ 2-3 week delivery
□ Contact us for quote

DIN Ejector Pins - Hardened

DIN Ejector Pins – EJP-ELH

Information KEY:
D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
Standard: DIN/ISO Type
Material: 1.2210 (AISI L2 Type) Steel
Surface Treatment: None (Through-Hardened)
Max. Temp.: 250˚C (482˚F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	H	K	L								
				0040	0080	0100	0125	0160	0200	0250	0315	0400
EJP-ELH (AH)*	01.5	3	1.5			⚡		⚡	⚡			
	01.6	3	1.5									
	01.7	3	1.5									
	01.8	3	1.5									
	02.0	4	2			⚡		⚡	⚡	⚡		
	02.2	4	2									
	02.5	5	2			⚡		⚡	⚡	⚡		
	02.7	5	2									
	03.0	6	3			⚡		⚡	⚡	⚡		
	03.2	6	3									
	03.5	7	3									
	03.7	7	3									
	04.0	8	3					⚡	⚡	⚡		
	04.2	8	3									
	04.5	8	3									
	04.7	8	3									
	05.0	10	3					⚡		⚡		
	05.2	10	3									
	05.5	10	3									
	06.0	12	5									
	06.2	12	5									
	06.5	12	5									
	07.0	12	5									
	08.0	14	5									
	08.2	14	5									
	08.5	14	5									
	09.0	14	5									
	10.0	16	5									
	10.2	16	5									
	10.5	16	5									
	11.0	16	5									
	12.0	18	7									
	12.2	18	7									
	12.5	18	7									
	14.0	22	7									
	16.0	22	7									
	18.0	24	7									
	20.0	26	8									

* "(AH)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix EJP-ELH - D - L

EXAMPLE:
PREFIX D L
EJP-ELH-015-0200

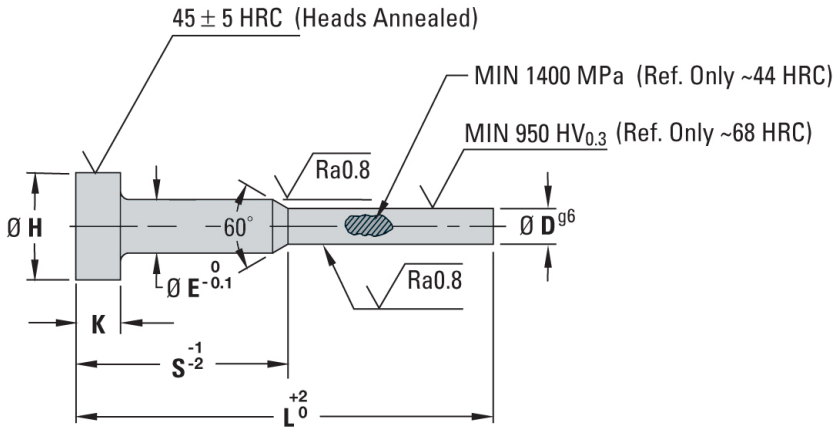
EXAMPLE:
PREFIX D L
EJP-ELH-050-0100

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

DIN Shoulder Ejector Pins - Nitrided

DIN Shoulder Ejector Pins – EJP-EHN

Information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
L = Length
S = Shoulder Length
Standard: DIN/ISO Type
Material: 1.2344 (AISI H13 Type) Steel
Surface Treatment: Nitrided
Max. Temp.: 500°-550°C (932°-1022°F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	E	H	K	L 0080 / S 0035	0100 / 0050	0125 / 0050	0160 / 0050	0160 / 0075	0200 / 0075	0250 / 0075
EJP-EHN (C)*	00.7	2	4	2							
	00.8	2	4	2							
	00.9	2	4	2							
	01.0	2	4	2		⚡	⚡	⚡		⚡	
	01.1	2	4	2							
	01.2	2	4	2		⚡	⚡		⚡	⚡	
	01.3	2	4	2							
	01.4	2	4	2							
	01.5	3	6	3		⚡	⚡	⚡		⚡	
	01.6	3	6	3							
	01.7	3	6	3							
	01.8	3	6	3							
	01.9	3	6	3							
	02.0	3	6	3		⚡	⚡		⚡	⚡	
	02.1	3	6	3							
	02.2	3	6	3							
	02.4	3	6	3							
	02.5	3	6	3			⚡		⚡	⚡	
	02.7	3	6	3							
	03.0	4	8	3							
	03.2	4	8	3							
	03.5	4	8	3							

* "(C)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, L length, and S length. Include zeros and dashes but omit decimals, as shown.

Prefix D L S
EJP-EHN - [ ] - [ ] - [ ]

EXAMPLE:
PREFIX D L S
EJP-EHN-010-0160-0050

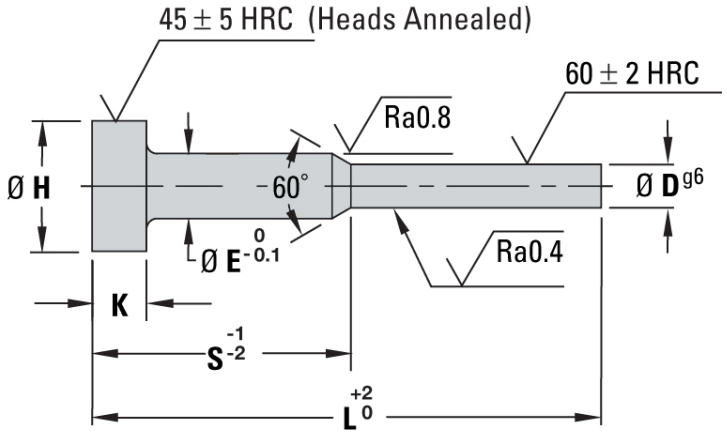
EXAMPLE:
PREFIX D L S
EJP-EHN-025-0200-0075

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

DIN Shoulder Ejector Pins - Hardened

DIN Shoulder Ejector Pins – EJP-ELH

information KEY:
D = Pin Body Diameter
E = Shoulder Diameter
H = Head Diameter
K = Head Thickness
L = Length
S = Shoulder Length
Standard: DIN/ISO Type
Material: 1.2210 (AISI L2 Type) Steel
Surface Treatment: None (Through-Hardened)
Max. Temp.: 250˚C (482˚F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	E	H	K	L 0080 / S 0035	L 0100 / S 0050	L 0125 / S 0050	L 0200 / S 0075	L 0250 / S 0100
EJP-ELH (CH)*	00.8	2	4	2					
	00.9	2	4	2					
	01.0	2	4	2		⚡	⚡		
	01.1	2	4	2					
	01.2	2	4	2		⚡	⚡		
	01.3	2	4	2					
	01.4	2	4	2					
	01.5	3	6	3		⚡	⚡	⚡	
	01.6	3	6	3					
	01.7	3	6	3					
	01.8	3	6	3					
	01.9	3	6	3					
	02.0	3	6	3		⚡	⚡	⚡	
	02.1	3	6	3					
	02.2	3	6	3					
	02.3	3	6	3					
	02.4	3	6	3					
	02.5	3	6	3				⚡	

* "(CH)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, L length and S length. Include zeros and dashes but omit decimals as shown.

Prefix	D	L	S
EJP-ELH	-	-	-

EXAMPLE:
PREFIX D L S
EJP-ELH-010-0100-0050

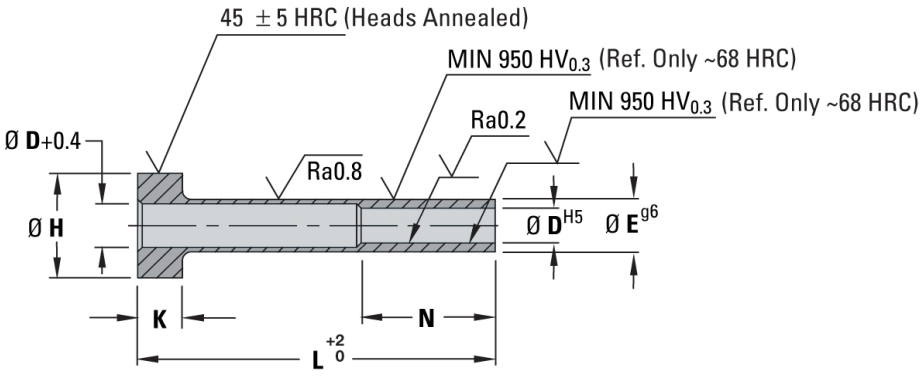
EXAMPLE:
PREFIX D L S
EJP-ELH-025-0125-0050

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

DIN Ejector Sleeves - Nitrided

DIN Ejector Sleeves – EJS-EHN

Information KEY:
D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
L = Length
N = Bearing Length
Standard: DIN/ISO Type
Material: 1.2344 (AISI H13 Type) St
Surface Treatment: Nitrided
Max. Temp.: 500°-550°C (932°-1022
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	E	H	K	N	L 0075	0100	0125	0150	0175	0200	0225	0250	0275	0300	0350
EJS-EHN (S)*	01.5	03.0	6	3	35											
	01.7	03.0	6	3	35											
	02.0	04.0	8	3	35			⚡	⚡							
	02.2	04.0	8	3	35											
	02.5	05.0	10	3	35			⚡	⚡							
	02.7	05.0	10	3	45											
	03.0	05.0	10	3	45		⚡	⚡	⚡	⚡						
	03.2	05.0	10	3	45											
	03.5	06.0	12	5	45		⚡	⚡	⚡	⚡						
	03.7	06.0	12	5	45											
	04.0	06.0	12	5	45		⚡	⚡	⚡	⚡	⚡					
	04.2	08.0	14	5	45											
	04.5	08.0	14	5	45											
	05.0	08.0	14	5	45		⚡	⚡	⚡	⚡	⚡					
	05.2	08.0	14	5	45											
	06.0	10.0	16	5	45			⚡	⚡	⚡	⚡	⚡	⚡			
	06.2	10.0	16	5	45											
	06.5	10.0	16	5	45											
	08.0	12.0	18	7	45			⚡	⚡	⚡	⚡	⚡	⚡	⚡		
	08.2	12.0	18	7	45											
	08.5	12.0	18	7	45											
	10.0	14.0	22	7	45			⚡	⚡	⚡	⚡	⚡	⚡	⚡		
	10.5	14.0	22	7	55											
	11.0	14.0	22	7	55											
	12.0	16.0	22	7	55			⚡	⚡	⚡	⚡	⚡	⚡	⚡		
	12.5	16.0	22	7	55											
	14.0	18.0	24	9	55											
	16.0	20.0	26	9	55											
	18.0	22.0	28	9	55											

* "(S)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix EJS-EHN - D - L

EXAMPLE: PREFIX D L EJS-EHN-020-0075

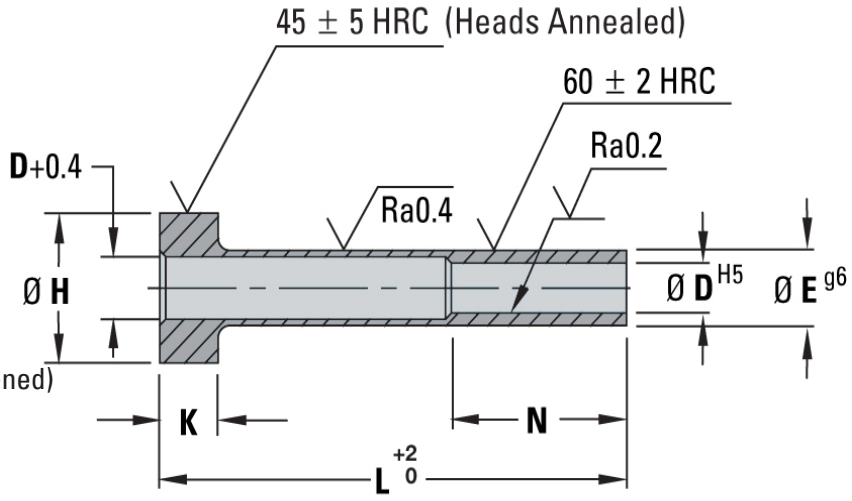
EXAMPLE: PREFIX D L EJS-EHN-120-0250

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

DIN Ejector Sleeves - Hardened

DIN Ejector Sleeves – EJS-ELH

Information KEY:
D = Inside Diameter
E = Outside Diameter
H = Head Diameter
K = Head Thickness
L = Length
N = Bearing Length
Standard: DIN/ISO Type
Material: 1.2210 (AISI L2 Type) Steel
Surface Treatment: None (Through-Hardened)
Max. Temp.: 250°C (482°F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	E	H	K	N	L												
						0075	0100	0125	0150	0175	0200	0225	0250	0275	0300	0350	0400	0450	0500
EJS-ELH (KS)*	01.5	03.0	6	3	35														
	01.7	03.0	6	3	35														
	02.0	04.0	8	3	35														
	02.2	04.0	8	3	35														
	02.5	05.0	10	3	35														
	02.7	05.0	10	3	45														
	03.0	05.0	10	3	45														
	03.2	05.0	10	3	45														
	03.5	06.0	12	5	45														
	03.7	06.0	12	5	45														
	04.0	06.0	12	5	45														
	04.2	08.0	14	5	45														
	04.5	08.0	14	5	45														
	05.0	08.0	14	5	45														
	05.2	08.0	14	5	45														
	05.5	08.0	14	5	45														
	06.0	10.0	16	5	45														
	06.2	10.0	16	5	45														
	06.5	10.0	16	5	45														
	08.0	12.0	18	7	45														
	08.2	12.0	18	7	45														
	08.5	12.0	18	7	45														
	10.0	14.0	22	7	45														
	10.5	14.0	22	7	55														
	11.0	14.0	22	7	55														
	12.0	16.0	22	7	45														
	12.5	16.0	22	7	55														
	14.0	18.0	24	9	55														
	16.0	20.0	26	9	55														
	18.0	22.0	28	9	55														

* "(KS)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, and L length. Include zeros and dashes but omit decimals, as s

Prefix D L
EJS-ELH - [ ] - [ ]

EXAMPLE:
PREFIX D L
EJS-ELH-020-0125

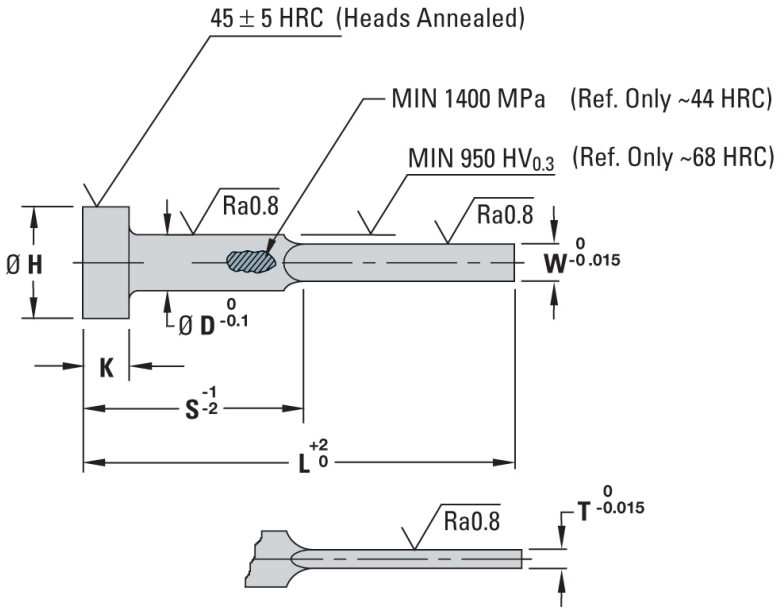
EXAMPLE:
PREFIX D L
EJS-ELH-120-0150

KEY TO CHART
Items in stock
2-3 week delivery
Contact DME for quote

DIN Ejector Blades - Nitrided

DIN Ejector Blades – EJB-EHN

Information KEY:
D = Shoulder Diameter
H = Head Diameter
K = Head Thickness
L = Length
S = Shoulder Length
T = Blade Thickness
W = Blade Width
Standard: DIN/ISO Type
Material: 1.2344 (AISI H13 Type) Steel
Surface Treatment: Nitrided
Max. Temp.: 500°-550°C (932°-1022°F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	T	W	D	H	K	L 0060 S 30	L 0080 S 40	L 0100 S 50	L 0125 S 63	L 0160 S 80	L 0200 S 100	L 0250 S 125	L 0315 S 160	L 0400 S 200
EJB-EHN (FW)*	01.0	03.5	4	8	3									
	01.0	03.8	4.2	8	3				⚡	⚡				
	01.0	04.5	5	10	3				⚡	⚡				
	01.0	05.5	6	12	5				⚡	⚡				
	01.2	03.5	4	8	3									
	01.2	03.8	4.2	8	3									
	01.2	04.5	5	10	3									
	01.2	05.5	6	12	5				⚡	⚡				
	01.2	07.5	8	14	5				⚡	⚡				
	01.5	04.5	5	10	5									
	01.5	05.5	6	12	5				⚡	⚡	⚡			
	01.5	07.5	8	14	5					⚡	⚡	⚡		
	01.5	09.5	10	16	3						⚡	⚡	⚡	
	01.8	09.5	10	16	5									
	02.0	05.5	6	12	5				⚡	⚡	⚡			
	02.0	07.5	8	14	5					⚡	⚡		⚡	
	02.0	09.5	10	16	5						⚡			
	02.0	11.5	12	18	7						⚡		⚡	
	02.0	12.0	12.5	18	7									
	02.0	15.5	16	22	7									
	02.5	11.5	12	20	7						⚡		⚡	
	02.5	12.0	12.5	18	7									
	02.5	15.5	16	22	7									

* "(FW)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, T thickness, W width, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix EJB-EHN - T - W - L

EXAMPLE:
PREFIX T W L
EJB-EHN-010-038-0125

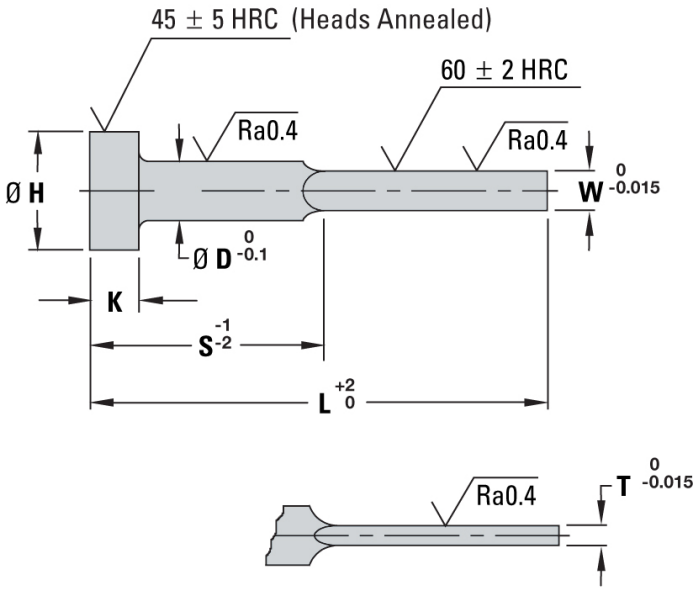
EXAMPLE:
PREFIX T W L
EJB-EHN-020-115-0200

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

DIN Ejector Blades - Hardened

DIN Ejector Blades – EJB-ELH

Information KEY:
D = Shoulder Diameter
H = Head Diameter
K = Head Thickness
L = Length
S = Shoulder Length
T = Blade Thickness
W = Blade Width
Standard: DIN/ISO Type
Material: 1.2210 (AISI L2 Type) Steel
Surface Treatment: None (Through-Hardened)
Max. Temp.: 250°C (482°F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	T	W	D	H	K	L 0060 S 30	0080 40	0100 50	0125 63	0160 80	0200 100	0250 125	0315 160	0400 200
EJB-ELH (FK)*	01.0	03.5	4	8	3									
	01.0	03.8	4.2	8	3									
	01.0	04.5	5	10	3									
	01.0	05.5	6	12	5									
	01.2	03.8	4.2	8	3									
	01.2	04.5	5	10	3									
	01.2	05.5	6	12	5									
	01.2	07.5	8	14	5									
	01.5	04.5	5	10	3									
	01.5	05.5	6	12	5									
	01.5	07.5	8	14	5									
	01.5	09.5	10	16	5									
	02.0	05.5	6	12	5									
	02.0	07.5	8	14	5									
	02.0	09.5	10	16	5									
	02.0	11.5	12	18	7									
	02.0	15.5	16	22	7									
	02.5	11.5	12	18	7									
	02.5	15.5	16	22	7									

* "(FK)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, T thickness, W width, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix	T	W	L
EJB-ELH	-	-	-

EXAMPLE:
PREFIX T W L
EJB-ELH-010-035-0060

EXAMPLE:
PREFIX T W L
EJB-ELH-020-115-0200

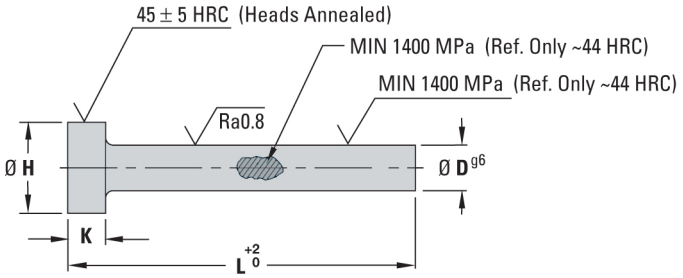
KEY TO CHART
- Items in stock
- 2-3 week delivery
- Contact DME for quote

DIN Core Pins - Hardened

DIN Core Pins – CRP-EHH

information KEY:

D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
Standard: DIN/ISO Type
Material: 1.2344 (AISI H13 Type) Steel
Surface Treatment: None (Through-Hardened)
Max. Temp.: 500°-550°C (932°-1022°F)
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	H	K	L										
				0080	0100	0125	0160	0200	0250	0315	0400	0500	0630	0800	1000
CRP-EHH (AHX)*	02.0	4	2		⚡			⚡							
	02.2	4	2												
	02.5	5	2												
	02.7	5	2												
	03.0	6	3		⚡			⚡							
	03.2	6	3												
	03.5	7	3												
	03.7	7	3												
	04.0	8	3		⚡			⚡		⚡					
	04.2	8	3												
	04.5	8	3												
	05.0	10	3		⚡			⚡			⚡				
	05.2	10	3												
	05.5	10	3												
	06.0	12	5		⚡			⚡			⚡				
	06.2	12	5												
	06.5	12	5												
	07.0	12	5												
	08.0	14	5		⚡			⚡			⚡				
	08.2	14	5												
	08.5	14	5												
	09.0	14	5												
	10.0	16	5					⚡			⚡				
	10.2	16	5												
	10.5	16	5												
	11.0	16	5												
	12.0	18	7					⚡			⚡				
	12.2	18	7												
	12.5	18	7												
	14.0	22	7												
	16.0	22	7								⚡		⚡		
	18.0	24	7												
	20.0	26	8								⚡		⚡		
	25.0	32	10								⚡		⚡		
	32.0	40	10												

* "(AHX)" is only a cross-reference to current D-M-E Europe Catalog item prefix numbers.

HOW to order: specify Item Number with prefix, D diameter, and L length. Include zeros and dashes but omit decimals, as shown.

Prefix CRP-EHH - D - L

EXAMPLE: PREFIX D L CRP-EHH-020-0200

EXAMPLE: PREFIX D L CRP-EHH-250-0315

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME for quote

Special DIN Sleeves - Quote Form

QUOTE FAX HOTLINES AVAILABLE or visit www.dme.net

United States: 888-808-4363 • Canada: 800-461-9965 • International: 248-398-7394

Special Sleeves

QUANTITY:_____

TYPE OF SLEEVE:_____
(SPECIFY ITEM PREFIX)

MATERIAL:
- ☐1.2344 (AISI H13 TYPE) STEEL
- ☐ 1.2210 (AISI L2 TYPE) STEEL
- ☐ OTHER _____

HARDNESS:
- ☐ STANDARD(AS SPECIFIED BY ITEM PREFIX)
- ☐OTHER_____HRC
(SPECIFY)

NITRIDED O.D.: ☐YES ☐NO

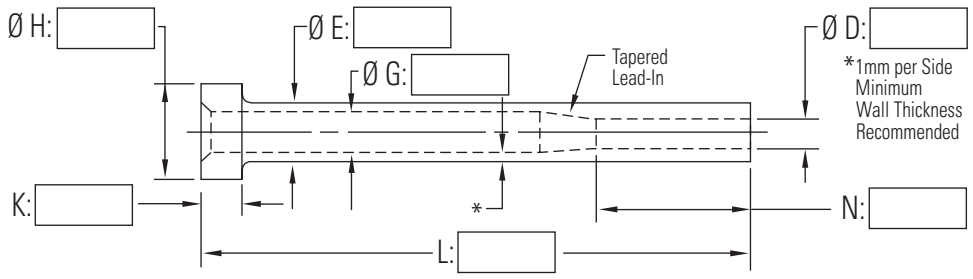
NITRIDED I.D.: ☐YES ☐NO

HEADS ARE ANNEALED

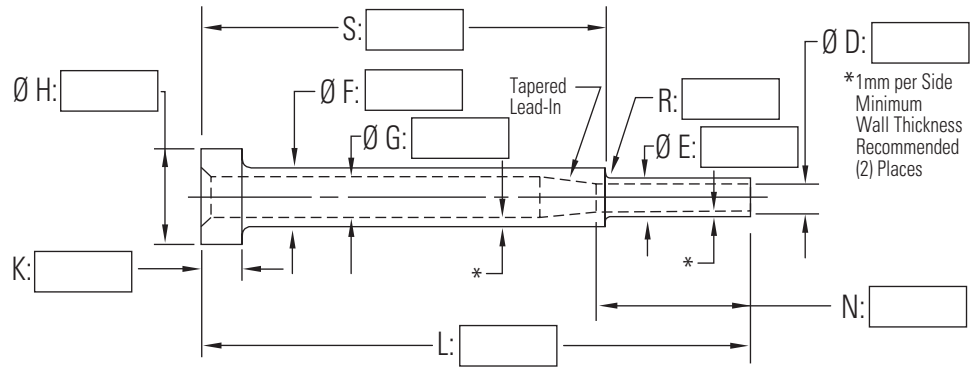
DESIRED DELIVERY: _____

TOLERANCES:
- ☐ AS INDICATED IN ITEM DRAWING
- ☐ OTHER (SPECIFY ON DRAWING)

SLEEVE



STEP SLEEVE

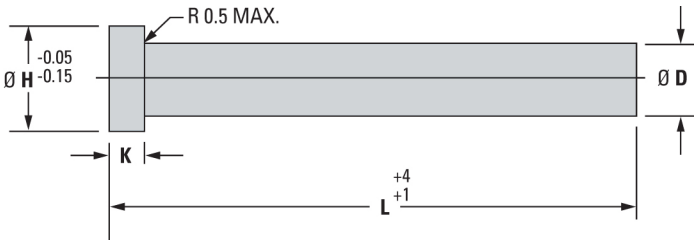


Company name:	DME account #:
Contact name:	P.O. #:
Phone:	FAX:
Address:	E-mail:
City:	State/Province:
ZIP/Postal Code:	Country:

Shipping method:
- ☐ UPS Ground
- ☐ UPS 2nd Day Air
- ☐ UPS Next Day
- ☐ FedEx
- ☐ Other _____

JIS Ejector Pins - Straight

JIS Ejector Pins – JFX



Information KEY:

D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
Standard: JIS
Material: SKD61 (H-13)
Surface Treatment: Nitrided
Surface Hardness: 70-72 Rc (HV 1000 ± 100)
Core Hardness: 40 HRC±2

Ø D PIN DIA	Ø H HEAD DIA	K HEAD THK	ITEM NUMBER (LENGTH L)										
			L=100	L=150	L=200	L=250	L=300	L=350	L=400	L=450	L=500	L=550	L=600
1.0	5	4	JFX010100	JFX010150									
1.5	5	4	JFX015100	JFX015150	JFX015200								
2	5	4	JFX020100	JFX020150	JFX020200	JFX020250							
2.5	6	4	JFX025100	JFX025150	JFX025200	JFX025250	JFX025300	JFX025350	JFX025400	JFX025450	JFX025500	JFX025550	JFX025600
3	6	4	JFX030100	JFX030150	JFX030200	JFX030250	JFX030300	JFX030350	JFX030400	JFX030450	JFX030500	JFX030550	JFX030600
3.5	7	4	JFX035100	JFX035150	JFX035200	JFX035250	JFX035300	JFX035350	JFX035400	JFX035450	JFX035500	JFX035550	JFX035600
4	8	6	JFX040100	JFX040150	JFX040200	JFX040250	JFX040300	JFX040350	JFX040400	JFX040450	JFX040500	JFX040550	JFX040600
4.5	8	6	JFX045100	JFX045150	JFX045200	JFX045250	JFX045300	JFX045350	JFX045400	JFX045450	JFX045500	JFX045550	JFX045600
5	9	6	JFX050100	JFX050150	JFX050200	JFX050250	JFX050300	JFX050350	JFX050400	JFX050450	JFX050500	JFX050550	JFX050600
5.5	10	6	JFX055100	JFX055150	JFX055200	JFX055250	JFX055300	JFX055350	JFX055400	JFX055450	JFX055500	JFX055550	JFX055600
6	10	6	JFX060100	JFX060150	JFX060200	JFX060250	JFX060300	JFX060350	JFX060400	JFX060450	JFX060500	JFX060550	JFX060600
6.5	11	6	JFX065100	JFX065150	JFX065200	JFX065250	JFX065300	JFX065350	JFX065400	JFX065450	JFX065500	JFX065550	JFX065600
7	11	6	JFX070100	JFX070150	JFX070200	JFX070250	JFX070300	JFX070350	JFX070400	JFX070450	JFX070500	JFX070550	JFX070600
8	13	8	JFX080100	JFX080150	JFX080200	JFX080250	JFX080300	JFX080350	JFX080400	JFX080450	JFX080500	JFX080550	JFX080600
9	15	8	JFX090100	JFX090150	JFX090200	JFX090250	JFX090300	JFX090350	JFX090400	JFX090450	JFX090500		
10	15	8	JFX100100	JFX100150	JFX100200	JFX100250	JFX100300	JFX100350	JFX100400	JFX100450	JFX100500	JFX100550	JFX100600
12	17	8	JFX120100	JFX120150	JFX120200	JFX120250	JFX120300	JFX120350	JFX120400	JFX120450	JFX120500	JFX120550	JFX120600
15	20	8	JFX150100	JFX150150	JFX150200	JFX150250	JFX150300	JFX150350	JFX150400	JFX150450	JFX150500	JFX150550	JFX150600

Ø D PIN DIA	Ø H HEAD DIA	K HEAD THK	ITEM NUMBER (LENGTH L)						
			L=650	L=700	L=750	L=800	L=900	L=1000	L=1200
2.5	6	4	JFX025650						
3	6	4	JFX030650	JFX030700					
3.5	7	4	JFX035650	JFX035700	JFX035750				
4	8	6	JFX040650	JFX040700	JFX040750				
4.5	8	6	JFX045650	JFX045700	JFX045750				
5	9	6	JFX050650	JFX050700	JFX050750				
6	10	6	JFX060650	JFX060700	JFX060750	JFX060800			
7	11	6	JFX070650	JFX070700	JFX070750	JFX070800			
8	13	8	JFX080650	JFX080700	JFX080750	JFX080800	JFX080900	JFX0801000	JFX0801200
10	15	8	JFX100650	JFX100700	JFX100750	JFX100800	JFX100900	JFX1001000	JFX1001200
12	17	8	JFX120650	JFX120700	JFX120750	JFX120800	JFX120900	JFX1201000	JFX1201200
15	20	8	JFX150650	JFX150700	JFX150750	JFX150800	JFX150900	JFX1501000	JFX1501200

JIS TOLERANCES		
PIN DIA Ø D	1.0 1.5	-0.005 -0.012
	2 TO 15	-0.01 -0.02
HEAD THICK K	4	-0 -0.020
	6 TO 8	-0 -0.030

Note: All dimensions are in mm.

HOW to order: Use Item Number in charts above for ordering.

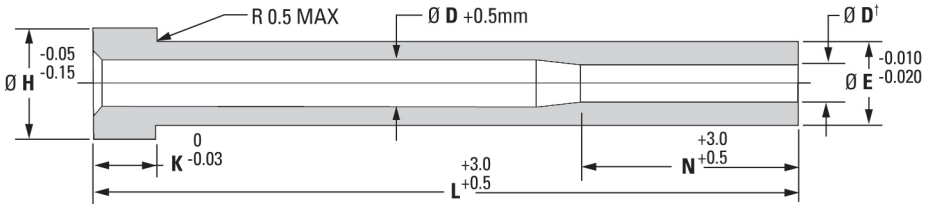
KEY TO CHART

Items in stock

Contact DME

JIS Ejector Sleeves

JIS Ejector Sleeves – JES



Information KEY:
D = Pin Inner Diameter
E = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
N = ID Bearing Length
Standard: JIS
Material: SKD61 (H-13)
Surface Treatment: Nitrided
Surface Hardness: 70-72 Rc
(HV 1000 ± 100)
Core Hardness: 32 HRC ±2

Ø D† I.D.	Ø E O.D.	Ø H HEAD DIA	K HEAD THK	ITEM NUMBER (LENGTH L)											
				L=80	L=100	L=125	L=150	L=175	L=200	L=225	L=250	L=275	L=300	L=325	L=350
				N=30	N=40		N=50		N=60		N=70			N=80	
1.5	4	8	6	JES0101	JES0201	JES0301									
2.0	4	8	6	JES0102	JES0202	JES0302	JES0402								
	4.5	8	6		JES0203	JES0303	JES0403								
	5	9	6		JES0204	JES0304	JES0404	JES0504	JES0604						
	6	10	6		JES0205	JES0305	JES0405	JES0505	JES0605						
2.5	5	9	6		JES0206	JES0306	JFS0406	JES0506	JES0606	JES0706					
	6	10	6		JES0207	JES0307	JES0407	JES0507	JES0607	JES0707	JES0807				
	6.5	11	6		JES0208	JES0308	JES0408	JES0508	JES0608	JES0708	JES0808				
3.0	5	9	6		JES0209	JES0309	JES0409	JES0509	JES0609						
	6	10	6		JES0210	JES0310	JES0410	JES0510	JES0610	JES0710	JES0810	JES0910	JES1010		
	6.5	11	6		JES0211	JES0311	JES0411	JES0511	JES0611	JES0711	JES0811	JES0911	JES1011		
	7	11	6		JES0212	JES0312	JES0412	JES0512	JES0612	JES0712	JES0812	JES0912	JES1012		
3.5	6	10	6		JES0213	JES0313	JES0413	JES0513	JES0613	JES0713	JES0813				
	6.5	11	6		JES0214	JES0314	JES0414	JES0514	JES0614	JES0714	JES0814	JES0914	JES1014		
	7	11	6		JES0215	JES0315	JES0415	JES0515	JES0615	JES0715	JES0815	JES0915	JES1015	JES1115	JES1215
4.0	6	10	6		JES0216	JES0316	JES0416	JES0516	JES0616						
	6.5	11	6		JES0217	JES0317	JES0417	JES0517	JES0617	JES0717	JES0817				
	7	11	6		JES0218	JES0318	JES0418	JES0518	JES0618	JES0718	JES0818	JES0918	JES1018	JES1118	JES1218
	8	13	8		JES0219	JES0319	JES0419	JES0519	JES0619	JES0719	JES0819	JES0919	JES1019	JES1119	JES1219
4.5	7	11	6		JES0220	JES0320	JES0420	JES0520	JES0620	JES0720	JES0820				
	8	13	8		JES0221	JES0321	JES0421	JES0521	JES0621	JES0721	JES0821	JES0921	JES1021	JES1121	JES1221
5.0	8	13	8		JES0222	JES0322	JES0422	JES0522	JES0622	JES0722	JES0822	JES0922	JES1022	JES1122	JES1222
	10	15	8		JES0223	JES0323	JES0423	JES0523	JES0623	JES0723	JES0823	JES0923	JES1023	JES1123	JES1223
5.5	8	13	8		JES0224	JES0324	JES0424	JES0524	JES0624	JES0724	JES0824				
	10	15	8		JES0225	JES0325	JES0425	JES0525	JES0625	JES0725	JES0825	JES0925	JES1025	JES1125	JES1225
6.0	10	15	8		JES0226	JES0326	JES0426	JES0526	JES0626	JES0726	JES0826	JES0926	JES1026	JES1126	JES1226
	12	17	8		JES0227	JES0327	JES0427	JES0527	JES0627	JES0727	JES0827	JES0927	JES1027	JES1127	JES1227
6.5	10	15	8		JES0228	JES0328	JES0428	JES0528	JES0628	JES0728	JES0828	JES0928	JES1028	JES1128	JES1228
	12	17	8		JES0229	JES0329	JES0429	JES0529	JES0629	JES0729	JES0829	JES0929	JES1029	JES1129	JES1229
8.0	12	17	8		JES0230	JES0330	JES0430	JES0530	JES0630	JES0730	JES0830	JES0930	JES1030	JES1130	JES1230
8.5	12	17	8		JES0231	JES0331	JES0431	JES0531	JES0631	JES0731	JES0831	JES0931	JES1031	JES1131	JES1231

†JIS TOLERANCES					
	Ø D I.D.	TOL		Ø E I.D.	TOL
Ø D SLEEVE I.D.	1.5 TO 3	+0.010 +0	Ø E SLEEVE I.D.	ALL SIZES	-0.010 -0.020
	3.5 TO 5	+0.012 +0			
	5.5 TO 8.5	+0.015 +0			

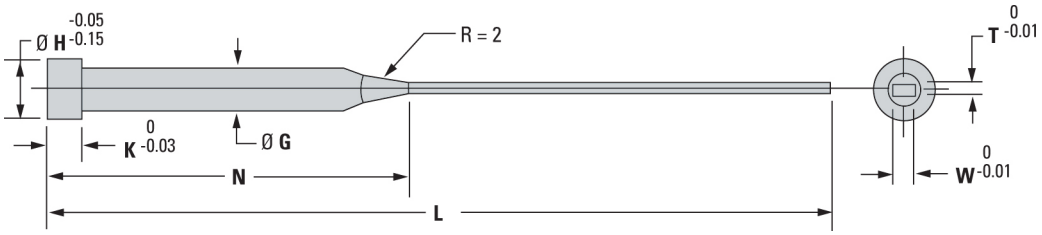
KEY TO CHART
Items in stock
Contact us

HOW to order: Use Item Number in charts above for order-

Note: All dimensions are in mm.

JIS Ejector Blades

JIS Ejector Blades – JEB



Information KEY:
D = Pin Body Diameter
H = Head Diameter
K = Head Thickness
L = Length
N = ID Bearing Length
T = Blade Thickness
W = Blade Width
Material: SKS21
Surface Treatment: Nitrided
Surface Hardness: 58

K HEAD THICK	Ø H HEAD DIA	Ø D PIN DIA	W BLADE WIDTH	T BLADE THICK	ITEM NUMBER (LENGTH L) L=100 N=40	L=125 N=50	L=150 N=60	L=175 N=70
4	5	2	1.2	0.4	JEB120402	JEB120403		
			1.5	0.4	JEB150402	JEB150403		
				0.5	JEB150502	JEB150503		
	6	2.5	2	0.4	JEB200402	JEB200403		
				0.5	JEB200502	JEB200503		
				0.6	JEB200602	JEB200603		
	7	3.5	3	0.6	JEB350602	JEB350603	JEB350604	
				0.8	JEB350802	JEB350803	JEB350804	
				1.0	JEB351002	JEB351003	JEB351004	
				1.2	JEB351202	JEB351203	JEB351204	
6	8	4		0.6	JEB300602	JEB300603	JEB300604	
				0.8	JEB300802	JEB300803	JEB300804	
				1.0	JEB301002	JEB301003	JEB301004	
				1.2	JEB301202	JEB301203	JEB301204	
	9	5	4	0.8	JEB400802	JEB400803	JEB400804	JEB400805
				1.0	JEB401002	JEB401003	JEB401004	JEB401005
				1.2		JEB401203	JEB401204	JEB401205
				1.5		JEB401503	JEB401504	JEB401505
	10	6	5	0.8		JEB500803	JEB500804	JEB500805
				1.0		JEB501003	JEB501004	JEB501005
				1.2		JEB501203	JEB501204	JEB501205
				1.5		JEB501503	JEB501504	JEB501505
				1.8		JEB501803	JEB501804	JEB501805
				2.0		JEB502003	JEB502004	JEB502005
	11	7	6	0.8		JEB600803	JEB600804	JEB600805
				1.0		JEB601003	JEB601004	JEB601005
				1.2		JEB601203	JEB601204	JEB601205
				1.5		JEB601503	JEB601504	JEB601505
				1.8		JEB601803	JEB601804	JEB601805
				2.0		JEB602003	JEB602004	JEB602005
8	15	10	8	0.8		JEB800803	JEB800804	JEB800805
				1.0		JEB801003	JEB801004	JEB801005
				1.2		JEB801203	JEB801204	JEB801205
				1.5		JEB801503	JEB801504	JEB801505
				1.8		JEB801803	JEB801804	JEB801805
				2.0		JEB802003	JEB802004	JEB802005
	17	12	10	1.0			JEB101004	JEB101005
				1.2			JEB101204	JEB101205
				1.5			JEB101504	JEB101505
				1.8			JEB101804	JEB101805
				2.0			JEB102004	JEB102005

KEY TO CHART

Items in stock

Contact usfor

JIS TOLERANCES		
Ø G PIN DIA	2 TO 2.5	-0.008 -0.018
	3.5 TO 5	-0.010 -0.020
	6 TO 7	-0.015 -0.025
	10 TO 12	-0.020 -0.030

ITEM NUMBER (LENGTH L)		
L=200 N=80	L=250 N=100	L=300 N=120
JEB500806		
JEB501006		
JEB501206		
JEB501506		
JEB501806		
JEB502006		
JEB600806		
JEB601006		
JEB601206		
JEB601506		
JEB601806		
JEB602006		
JEB800806	JEB800808	
JEB801006	JEB801008	JEB801010
JEB801206	JEB801208	JEB801210
JEB801506	JEB801508	JEB801510
JEB801806	JEB801808	JEB801810
JEB802006	JEB802008	JEB802010
JEB101006	JEB101008	JEB101010
JEB101206	JEB101208	JEB101210
JEB101506	JEB101508	JEB101510
JEB101806	JEB101808	JEB101810
JEB102006	JEB102008	JEB102010

Note: All dimensions are in mm.

HOW to order: Use Item Number in charts above for order-

Quick Custom Pins - Quote Form

QUOTE FAX HOTLINES AVAILABLE or visit www.dme.net **ONLINE FORM**

United States: 888-808-4363 • Canada: 800-461-9965 • International: 248-398-7394

CUSTOM PINS

QUANTITY:

CHOOSE A PIN TYPE:

☐ **EX** (35 HRC - 43 HRC CORE HARDNESS WITH 65 HRC - 70 HRC CASE HARDNESS)

☐ **THX** (50 HRC - 55 HRC CORE HARDNESS WITH 65 HRC - 70 HRC CASE HARDNESS)

☐ **CX** (50 HRC - 55 HRC THROUGH HARD)

☐ **C** (30 HRC - 35 HRC THROUGH HARD)

MATERIAL H-13 ☐

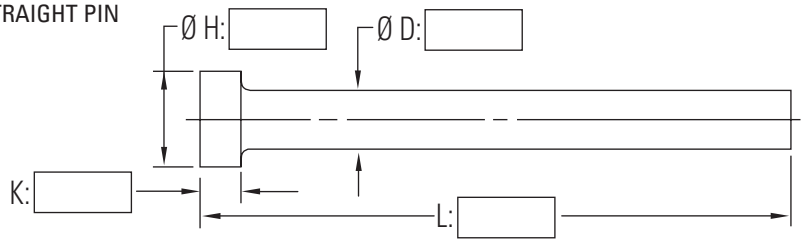
OTHER

HARDNESS RC

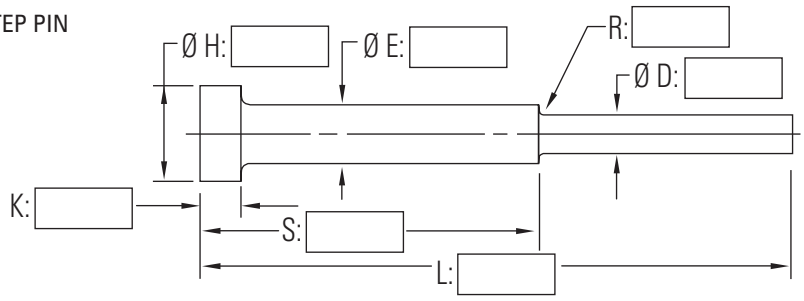
NITRIDED YES ☐ NO

☐COMMENTS

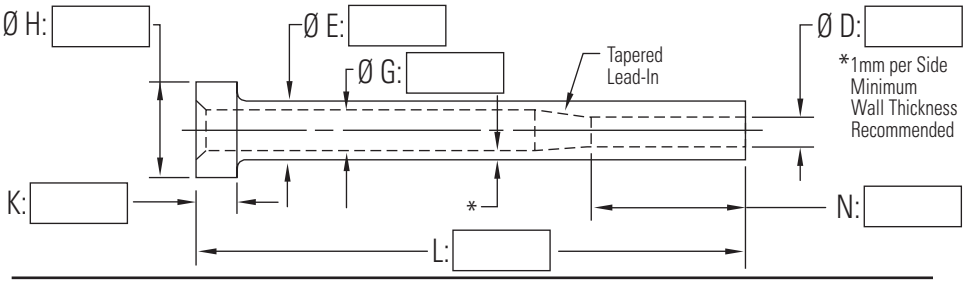
STRAIGHT PIN



STEP PIN



SLEEVE



CUSTOM SLEEVES

QUANTITY:

☐ NITRIDE ON OD

☐ NITRIDE ON OD + ID

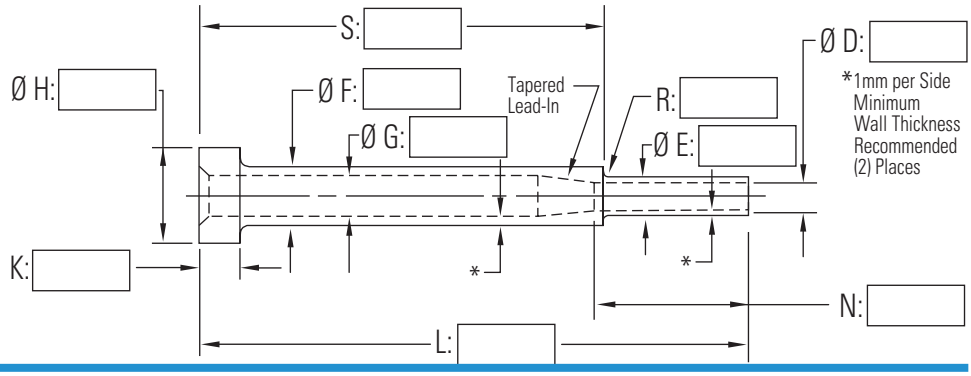
MATERIAL H-13 ☐

OTHER

HARDNESS RC

COMMENTS

STEP SLEEVE



COMPANY NAME:	DME ACCOUNT #:
CONTACT NAME:	P.O. #:
PHONE:	FAX:
ADDRESS:	E-MAIL:
CITY:	STATE/PROVINCE:
ZIP/POSTAL CODE:	COUNTRY:

Shipping method:

☐ UPS Ground

☐ UPS 2nd Day Air

☐ UPS Next Day

☐ FedEx

DME Ejector & Core Pin Diameters Table

PIN DIA	FRACTION OR METRIC SIZE	EJECTOR ITEM NUMBER	EJECTOR STANDARD LENGTHS: INCH OR MM	CORE ITEM NUMBER	CORE LENGTHS: INCH OR MM
.3906	25/64	THX26	10	—	—
.3937	10MM	E-10	160, 250, 315, 400, 500, 630, 800, 1000	AH-10	80, 100, 125, 160, 200, 250, 315
.3937	10MM	JFX-100	100 THROUGH 1200	AHX-10	100, 200, 315
.3956	25/64 OS	EX26 OS	10	—	—
.3956	25/64 OS	THX26 OS	10	—	—
.4016	10.2MM	E-10.2	160, 250, 315, 400, 500, 630	AH-10.2	100, 125, 160, 200, 250, 315
.4062	13/32	EX27	6, 10, 14, 18, 25	C/CX-27	3, 6, 10, 14
.4062	13/32	THX27	6, 10, 14	—	—
.4112	13/32 OS	EX27 OS	10, 14	—	—
.4112	13/32 OS	THX27 OS	10, 14	—	—
.4134	10.5MM	E-10.5	160, 250, 315, 400, 500, 630	AH-10.5	100, 125, 160, 200, 250, 315
.4219	27/64	EX28	10	—	—
.4219	27/64	THX28	10	—	—
.4269	27/64 OS	EX28 OS	10	—	—
.4269	27/64 OS	THX28 OS	10	—	—
.4331	11MM	E-11	160, 250, 315, 400, 500, 630	—	—
.4375	7/16	EX29	6, 10, 14, 18, 25, 36	C/CX-29	3, 6, 10, 14
.4375	7/16	THX29	6, 10, 14	—	—
.4425	7/16 OS	EX29 OS	6, 10, 14	—	—
.4425	7/16 OS	THX29 OS	6, 10, 14	—	—
.4531	29/64	EX30	10	—	—
.4531	29/64	THX30	10	—	—
.4581	29/64 OS	EX30 OS	10	—	—
.4581	29/64 OS	THX30 OS	10	—	—
.4688	15/32	EX31	6, 10, 14, 18, 25		3, 6, 10, 14
.4688	15/32	THX31	6, 10, 14	—	—
.4724	12MM	EX-12	160, 250, 315, 400, 500, 630	C/CX-31	80, 100, 125, 160, 200, 250, 315
.4724	12MM	JFX-120	100 THROUGH 1200	AH-12	100, 200, 315
.4738	15/32 OS	EX31 OS	10	—	—
.4803	12.2MM	E-12.2E	160, 250, 315, 400	—	—
.4844	31/64	X32	10, 14	—	—
.4844	31/64	THX32	10, 14	—	—
.4894	31/64 OS	EX32 OS	10	—	—
.4894	31/64 OS	THX32 OS	10	—	—
.4921	12.5MM	E-12.5	160, 250, 315, 400, 500, 630, 800	AH-12.5	100, 125, 160, 200, 250, 315

PIN DIA	FRACTION OR METRIC SIZE	EJECTOR ITEM NUMBER	EJECTOR STANDARD LENGTHS: INCH OR MM	CORE ITEM NUMBER	CORE LENGTHS: INCH OR MM
.500	1/2	EX33	6, 10 14, 18, 25, 36	C/CX-33	3, 6, 10, 14
.500	1/2	THX33	6, 10, 14, 18	—	—
.505	1/2 OS	EX33 OS	10, 14	—	—
.505	1/2 OS	THX33 OS	10, 14	—	—
.5312	17/32	EX34	6, 10, 14	—	—
.5312	17/32	THX34	6, 10, 14	—	—
.5512	14MM	E-14	160, 250, 315, 400, 500, 630, 800, 1000	AH-14	100, 125, 160, 200, 250, 315
.5625	9/16	EX35	6, 10, 14, 18, 25	C/CX-35	6, 10, 14
.5625	9/16	THX35	6, 10, 14	—	—
.5906	15MM	JFX-150	100 THROUGH 1200	—	—
.625	5/8	EX37	6, 10, 14, 18, 25, 36	C/CX-37	6, 10, 14
.625	5/8	THX37	6, 10, 14, 18	—	—
.6299	16MM	E-16	160, 250, 315, 400, 500, 630, 800, 1000	AH-16	100, 125, 160, 200, 250, 315
.6875	11/16	EX39	6, 10, 14, 18, 25	—	—
.6875	11/16	THX39	6, 10, 14	—	—
.7087	18MM	E-18	160, 250, 315, 400, 500, 630	—	—
.750	3/4	EX41	6, 10, 14, 18, 25, 36	C/CX-41	6, 10, 14
.750	3/4	THX41	6, 10, 14, 18	—	—
.7874	20MM	E-20	160, 250, 315, 400, 500, 630, 800, 1000	—	—
.875	7/8	EX45	6, 10, 14, 18, 25	—	—
.875	7/8	THX45	6, 10, 14	—	—
.9843	25MM	E-25	250, 315, 400, 500, 630, 800, 1000	—	—
1.000	1"	EX47	6, 10, 14, 18, 25, 36	—	—
1.000	1"	THX47	10, 14, 18	—	—
1.2598	32MM	E-32	250, 315, 400, 500, 630, 800, 1000	—	—

Description of Pin Abbreviations:

1/2 SH = 1/2" Shoulder

2 SH = 2" Shoulder

NS = No Shoulder

THX = No Shoulder

OS = Oversize

Ejector Pins – INCH:

EX = Hotwork Ejector Pins

THX = Through-Hardened Ejector Pins

CT = Close-Tolerance Through-Hardened Ejector Pins

Ejector Pins – DIN:

E = DIN Ejector Pins

EC = DIN Ejector Pins; Shoulder

JFX = DIN Ejector Pins; JIS Standard

Core Pins – INCH & DIN:

C = Core Pins; Standard Hardness

CX = Core Pins; High Hardness

AHX = DIN Core Pins; Standard Through-Hardened

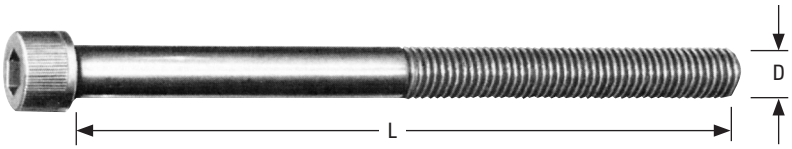
AH = DIN Core Pins; High Through-Hardened

Socket Head Cap Screws - INCH

Socket Head Cap Screw-Inch

Up to 12" Long

High-grade alloy steel, heat treated to 38-45 HRC. Tensile strength: 180,000 psi minimum.



D = DIAMETER OF SCREWS												
		NO. 6	NO. 8	NO. 10	1/4	5/16	3/8	1/2	5/8	3/4	1	
DECIMAL EQUIVALENT		.138	.164	.190	.250	.3125	.375	.500	.625	.750	1.000	DECIMAL EQUIVALENT
THREADS PER INCH NATIONAL COARSE		32	32	24	20	18	16	13	11	10	8	THREADS PER INCH NATIONAL COARSE
L = LENGTH UNDER THE HEAD	1/4	⍰	⍰									1/4
	3/8	⍰	⍰	⍰	⍰	⍰						3/8
	1/2	⍰	⍰	⍰	⍰	⍰	⍰	⍰				1/2
	5/8	⍰	⍰	⍰	⍰	⍰	⍰	⍰				5/8
	3/4	⍰	⍰	⍰	⍰	⍰	⍰	⍰				3/4
	7/8	⍰	⍰	⍰	⍰	⍰	⍰	⍰				7/8
	1	⍰	⍰	⍰	⍰	⍰	⍰	⍰	⍰			1
	11/4		⍰	⍰	⍰	⍰	⍰	⍰	⍰			11/4
	11/2		⍰	⍰	⍰	⍰	⍰	⍰	⍰			11/2
	13/4			⍰	⍰	⍰	⍰	⍰	⍰			13/4
	2			⍰	⍰	⍰	⍰	⍰	⍰	⍰	⍰	2
	21/4				⍰	⍰	⍰	⍰	⍰	⍰		21/4
	21/2				⍰	⍰	⍰	⍰	⍰	⍰	⍰	21/2
	23/4				⍰	⍰	⍰	⍰	⍰	⍰		23/4
	3				⍰	⍰	⍰	⍰	⍰	⍰	⍰	3
	31/4					⍰	⍰	⍰	⍰	⍰		31/4
	31/2					⍰	⍰	⍰	⍰	⍰	⍰	31/2
	4						⍰	⍰	⍰	⍰	⍰	4
	41/2						⍰	⍰	⍰	⍰		41/2
	5						⍰	⍰	⍰	⍰	⍰	5
	51/4							⍰				51/4
	51/2							⍰	⍰	⍰	⍰	51/2
	53/4							⍰				53/4
	6						⍰	⍰	⍰	⍰	⍰	6
	61/2							⍰	⍰	⍰	⍰	61/2
	7							⍰	⍰	⍰	⍰	7
	71/2							⍰	⍰			71/2
	8							⍰	⍰	⍰	⍰	8
	9							⍰				9
	10							⍰	⍰	⍰		10
	12							⍰	⍰	⍰		12
MAX HEAD DIAMETER		.226	.270	5/16	3/8	15/32	9/16	3/4	5/16	11/8	11/2	MAX HEAD DIAMETER
MAX HEAD HEIGHT		.138	.164	.190	1/4	5/16	3/8	1/2	5/8	3/4	1	MAX HEAD HEIGHT
SIZE OF HEX HOLE		7/64	9/64	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	SIZE OF HEX HOLE

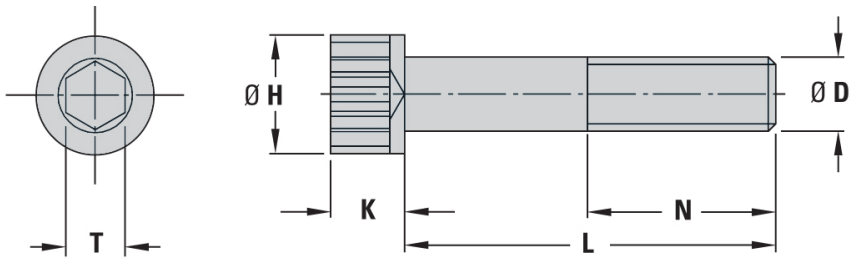
L = LENGTH UNDER THE HEAD

⍰ = in stock

Socket Head Cap Screws - Metric
Lock Washers (Spring Washers) - Metric

Socket Head Cap Screws – M

Information KEY:
D = Thread Diameter
H = Head Diameter
K = Head Height
L = Length
N = Thread Length
T = Hex Socket Size (Across Flats)
Standard: DIN 912-12.9
Material: Per DIN Specification
Dimensions: Shown in Millimeters



D	N	H	K	T	L																							
					8	10	12	16	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150	160	180	200	220	240	260
M4	12	7	4	3																									
M6	18	10	6	5																									
M8	22	13	8	6												⚡		⚡		⚡									
M10	25	16	10	8						⚡	⚡					⚡			⚡	⚡	⚡		⚡	⚡					
M12	28	18	12	10							⚡					⚡		⚡		⚡	⚡	⚡	⚡	⚡	⚡	⚡			
M16	38	24	16	14									⚡			⚡		⚡		⚡									
M16	44	24	16	14																	⚡	⚡	⚡	⚡	⚡				
M16	57	21	10	14																						⚡		⚡	
M20	52	30	20	17																									
M20	65	30	20	17																									

HOW to order: specify D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

D L

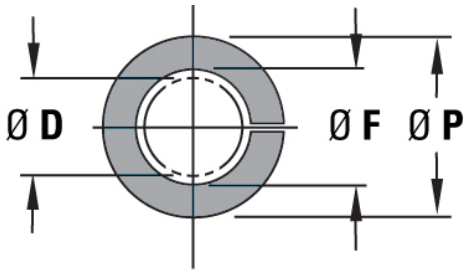
EXAMPLE:
D L
M6 30

EXAMPLE:
D L
M20 200

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Lock Washers/Spring Washers – R54

Information KEY:
D = For Screw Diameter
F = Inside Diameter
P = Outside Diameter
T = Thickness
Standard: DIN 7980
Material: Per DIN Specification
Dimensions: Shown in Millimeters (mm)



ITEM NUMBER	D	F	P	T	AVAILABILITY
R54 08 2	08	8.1	12.7	2.0	⚡
R54 10 2,5	10	10.2	16	2.5	⚡
R54 12 2,5	12	12.5	18	2.5	⚡

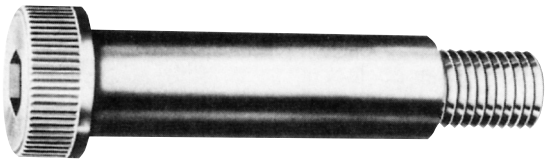
HOW to order: specify Item Number. Include zeros and commas but omit decimals and all spaces (spaces are only shown here for easier reading).

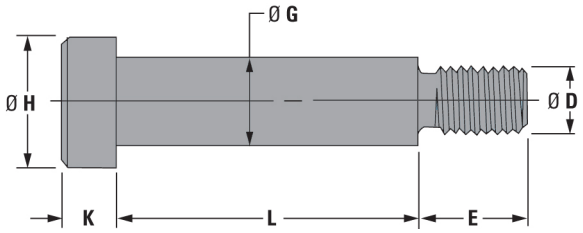
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Socket Head Stripper Bolts - INCH
Key and Key Kits - INCH

Socket Head Stripper Bolts

These Socket Head Stripper Bolts (Shoulder Screws) are made from high-grade alloy steel, heat treated to 36 HRC minimum. Tensile strength: 160,000 psi.





- Concentricity between diameters G and H is within .005" T.I.R.
- Tolerance of Ø G is -.002 -.004

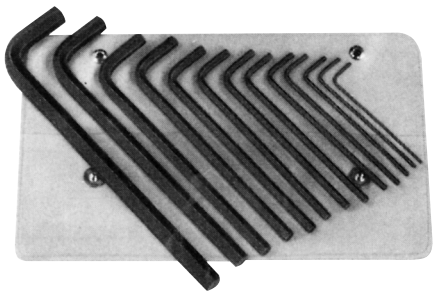
G SHOULDER DIAMETER	1/4	5/16	3/8	1/2	5/8	3/4
D THREAD	NO. 10-24	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11
E THREAD LENGTH	3/8	7/16	1/2	5/8	3/4	7/8
H HEAD DIAMETER	3/8 +.000 -.018	7/16 +.000 -.019	9/16 +.000 -.019	3/4 +.000 -.021	7/8 +.000 -.022	1" +.000 -.023
K HEAD HEIGHT	3/16 +.000 -.006	7/32 +.000 -.006	1/4 +.000 -.006	5/16 +.000 -.006	3/8 +.000 -.007	1/2 +.000 -.008
HEX HOLE ACROSS FLATS	1/8	5/32	3/16	1/4	5/16	3/8

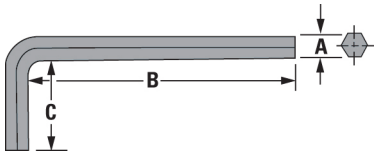
L SHOULDER LENGTH	SHOULDER DIA. G					
	1/4	5/16	3/8	1/2	5/8	3/4
1	⍰	⍰	⍰	⍰		
11/4	⍰	⍰	⍰	⍰	⍰	
11/2	⍰	⍰	⍰	⍰	⍰	⍰
13/4		⍰	⍰	⍰	⍰	⍰
2		⍰	⍰	⍰	⍰	⍰
21/4			⍰	⍰	⍰	⍰
21/2			⍰	⍰	⍰	⍰
23/4			⍰	⍰	⍰	⍰
3			⍰	⍰	⍰	⍰
31/4			⍰	⍰	⍰	⍰
31/2			⍰	⍰	⍰	⍰
33/4			⍰	⍰	⍰	⍰
4			⍰	⍰	⍰	⍰
41/4				⍰	⍰	⍰
41/2				⍰	⍰	⍰
43/4				⍰	⍰	⍰
5				⍰	⍰	⍰
51/2					⍰	⍰
6					⍰	⍰
7						⍰

⍰ = IN STOCK

Keys and Key Kits – KK, LAK

The .050 to 3/8 keys are sold in a 13-piece kit; 1/2 to 3/4 keys are sold individually as detailed at right.



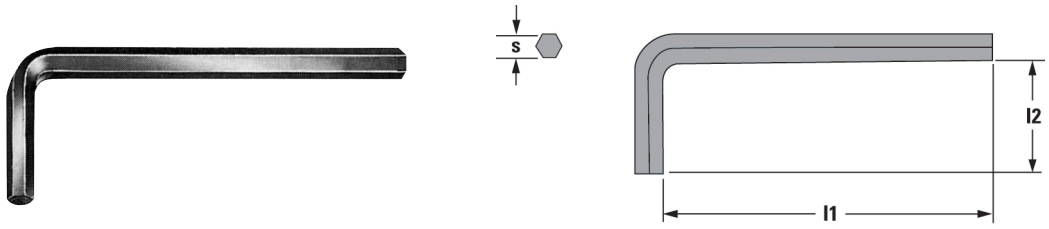


CAP SCREW	STRIPPER BOLT	PRESS. PLUG	A	B	C	ITEM NUMBER
NO. 0			.050	2.844	.531	KK-13 (13-PIECE KIT, .050 TO 3/8 ACROSS FLATS AS DETAILED)
NO. 1			1/16	3.000	.562	
NO. 2 & 3			5/64	3.188	.609	
NO. 4 & 5			3/32	3.375	.656	
NO. 6			7/64	3.562	.703	
	1/4		1/8	3.750	.750	
NO. 8			9/64	3.960	.796	
NO. 10	5/16		5/32	4.125	.844	
1/4	3/8	1/8	3/16	4.500	.938	
			7/32	4.875	1.031	
5/16	1/2	1/4	1/4	5.250	1.125	
3/8	5/8	3/8	5/16	6.000	1.250	
1/2	3/4	1/2	3/8	6.750	1.375	
5/8			1/2	8.250	1.625	LAK-12
		3/4	9/16	9.000	1.750	LAK-916
3/4		1"	5/8	9.750	1.875	LAK-58
1"			3/4	11.250	2.125	LAK-34

Keys - Metric
Shoulder Bolts (Stripper Bolts) - Metric

Metric Keys – SE630

Extra long hexagon socket screw keys



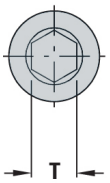
MATERIAL: 50 CRV4 – DIN

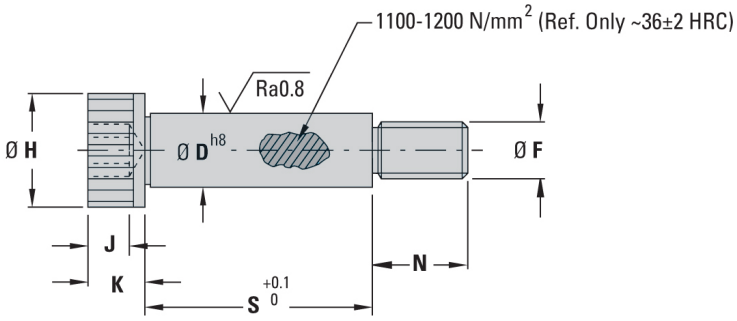
REF S	I1	I2	DIN 912	DIN 913-915	DIN 7991
SE 630 2	100	16	M2.5	M4	
SE 630 3	126	20	M4	M6	M5
SE 630 4	140	25	M5	M8	M6
SE 630 5	160	28	M6	M10	M8
SE 630 6	180	32	M8	M12-M14	M10
SE 630 8	200	36	M10	M16	M12
SE 630 10	224	40	M12	M18-M20	M14-M16
SE 630 12	250	45	M14	M22-M24	M18-M20
SE 630 14	280	55	M16-M18		M22-M24

Shoulder Bolts/Stripper Bolts – PM

Information KEY:

D = Shoulder Diameter
F = Thread Diameter
H = Head Diameter
J = Socket Depth
K = Head Thickness
N = Thread Length
S = Shoulder Length
T = Socket Hex Size (Across Flats)
Standard: AFNOR E 27-192 Class 12.9
Material: AFNOR 35 NC 6 (AISI 3135 Type) Steel
Dimensions: Shown in Millimeters





ITEM PREFIX	H	K	N	E	T	J	F	S 6	8	10	12	14	16	20	25	30	40	50	60	70	80	90	100	110	120	140	160	200	250
PM5	9	4	8	6	3	2.5	M5				⚡		⚡		⚡		⚡												
PM6	11	5	10	8	4	3	M6				⚡		⚡	⚡	⚡		⚡												
PM8	14	6	12	10	5	4	M8						⚡	⚡	⚡	⚡	⚡	⚡					⚡						
PM10	18	8	16	12	6	5	M10							⚡		⚡	⚡				⚡		⚡		⚡				
PM12	22	10	20	16	8	6	M12								⚡	⚡	⚡		⚡		⚡		⚡		⚡				
PM16	28	12	25	20	10	8	M16										⚡		⚡		⚡		⚡						
PM20	36	16	32	25	14	11	M29												⚡										
PM24	45	20	40	32	17	12	M24																						

HOW to order: specify Item Number with prefix and S length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix | S

EXAMPLE:
PREFIX S
PM8 20

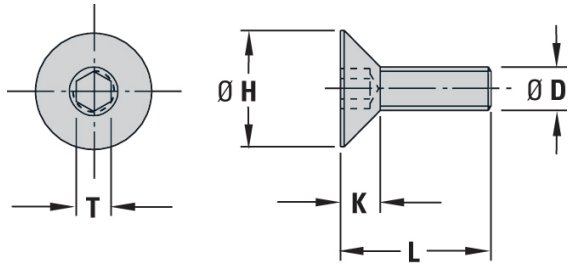
EXAMPLE:
PREFIX S
PM24 120

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Flat Head Screws - Metric
Set Screws with Spring Loaded Ball Plunger - Metric

Flat Head Screws – SM

Information KEY:
D = Thread Diameter
H = Head Diameter
K = Head Height
L = Length
T = Hex Socket Size (Across Flats)
Standard: DIN 7991-10.9
Material: Per DIN Specification
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	H	K	T	D	L										
					8	10	12	16	20	25	30	35	40	45	50
SM3	6	2.5	1.7	M3											
SM4	8	3	2.3	M4	⚡	⚡	⚡								
SM5	10	4	2.8	M5		⚡	⚡	⚡							
SM6	12	5	3.3	M6			⚡	⚡							
SM8	16	6	4.4	M8				⚡	⚡						
SM10	20	8	5.5	M10											
SM12	24	10	6.5	M12											

HOW to order: specify Item Number with prefix and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix | L

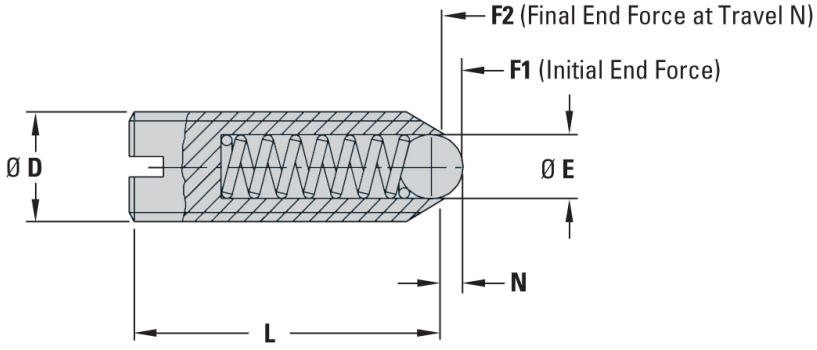
EXAMPLE:
PREFIX L
SM3 10

EXAMPLE:
PREFIX L
SM8 16

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Set Screws with Spring Loaded Ball Plunger (High Temperature) – FDV

Information KEY:
D = Thread Diameter
E = Ball Diameter
L = Body Length
N = Ball Plunger Maximum Travel
F1 = Initial End Force (Force in Newtons)
F2 = Final End Force (Force in Newtons)
Material: 1.4305 (AISI 303 Type) Stainless Steel
Max. Temp.: 250°C (482°F)
Dimensions: Shown in Millimeters (mm)



ITEM NUMBER	AVAILABILITY	D	L	E	N	F1 (INITIAL)	F2 (FINAL)
FDV 5 12		M5	12	3	0.9	6	11
FDV 6 14		M6	14	3.5	1	9	15
FDV 8 16	⚡	M8	16	5	1.5	18	30
FDV 10 19	⚡	M10	19	6	2	20	40
FDV 12 22		M12	22	8	2.5	30	55
FDV 16 24	⚡	M16	24	10	3.5	65	120
FDV 20 30		M20	30	18	4.5	90	140
FDV 24 34		M24	34	15	5.5	125	180

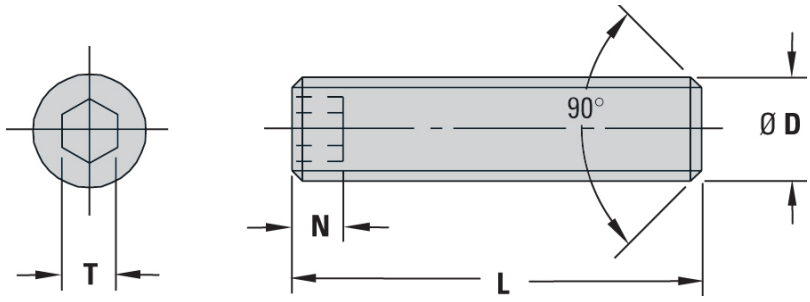
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

HOW to order: specify Item Number. Omit spaces (spaces are only shown here for easier reading).

Set Screws with Flat Point (Grub Screws) - Metric
Set Screws with Dog Point (Allen Head) - Metric

Set Screws with Flat Point (Grub Screws) – GS913

Information KEY:
D = Thread Diameter
L = Length
N = Hex Socket Depth
T = Hex Socket Size (Across Flats)
Standard: DIN 913-45H
Material: Per DIN Specification
Dimensions: Shown in



ITEM PREFIX	T	N	D	L											
				004	005	006	008	010	012	016	020	025	030	040	050
GS913	1.5	2.5	M03												
	2	2.5	M04												
	2.5	3	M05												
	3	3.5	M06					⚡							
	4	5	M08							⚡					
	5	6	M10								⚡		⚡	⚡	
	6	8	M12									⚡	⚡	⚡	⚡
	6	10	M16												

HOW to order: specify Item Number with prefix, D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	L
GS913		

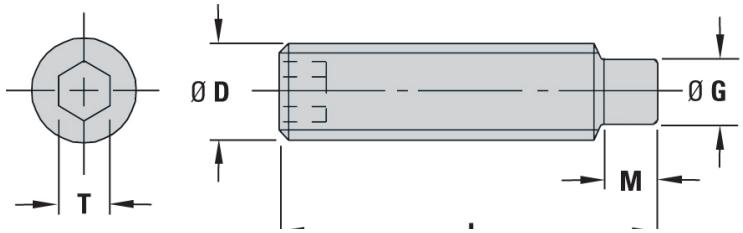
EXAMPLE:
PREFIX D L
GS913 M08 016

EXAMPLE:
PREFIX D L
GS913 M12 050

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Set Screws with Dog Point (Allen Head) – GS915

Information KEY:
D = Thread Diameter
G = Dog Point Diameter
L = Length
M = Dog Point Length
T = Hex Socket Size (Across Flats)
Standard: DIN 915-45H
Material: Per DIN Specification
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	T	G	M	D	L							
					010	016	020	025	030	040	050	060
GS915	2	2.5	3	M04								
	3	4	3.5	M06		⚡		⚡				
	4	5.5	5	M08								
	5	7	5.5	M10								
	6	8.5	7	M12								
	8	12	9	M16								

HOW to order: specify Item Number with prefix, D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	L
GS915		

EXAMPLE:
PREFIX D L
GS915 M06 016

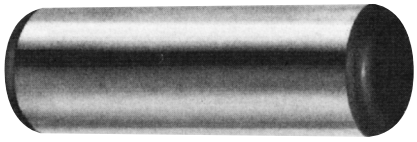
EXAMPLE:
PREFIX D L
GS915 M12 050

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Dowel Pins & Tubular Dowels - INCH

Dowel Pins-Inch

DME Dowel Pins are made from high-grade alloy steel, hardened and precision ground.



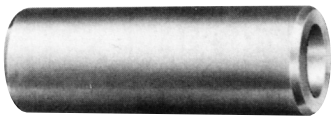
LENGTH	DIAMETER									LENGTH
	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	
3/8	⍰	—	—	—	—	—	—	—	—	3/8
1/2	⍰	⍰	⍰	—	—	—	—	—	—	1/2
3/4	⍰	⍰	⍰	—	⍰	⍰	—	—	—	3/4
1	⍰	⍰	⍰	⍰	⍰	⍰	—	—	—	1
11/4	—	—	⍰	⍰	⍰	⍰	—	—	—	11/4
11/2	—	⍰	⍰	⍰	⍰	⍰	⍰	—	—	11/2
2	⍰	⍰	⍰	⍰	⍰	⍰	⍰	⍰	⍰	2
21/2	—	—	⍰	—	⍰	⍰	⍰	⍰	—	21/2
3	—	—	—	—	⍰	⍰	⍰	⍰	⍰	3
4	—	—	—	—	—	⍰	⍰	⍰	⍰	4
5	—	—	—	—	—	—	⍰	⍰	⍰	5

⍰ = IN STOCK

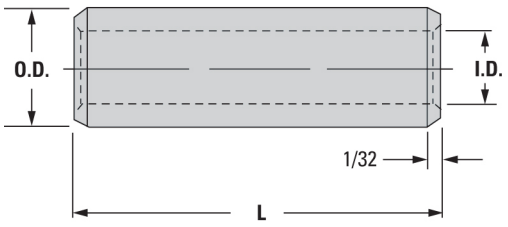
WHEN ORDERING, PLEASE SPECIFY:
1. QUANTITY
2. DIAMETER
3. LENGTH

Tubular Dowels

Tubular Dowels are hardened and precision ground. They are used in our mold base assemblies to accurately align the “B” plate, support plate and the ejector housing.

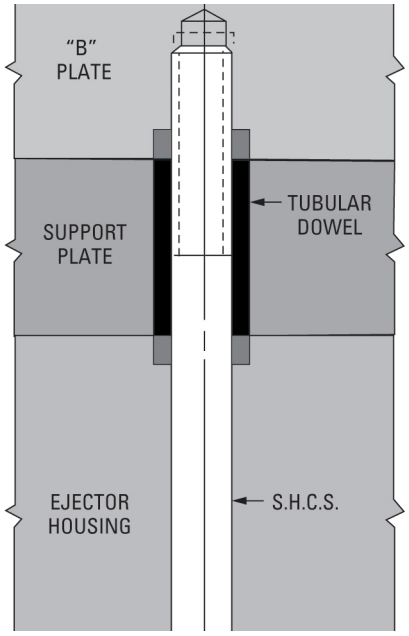


The use of Tubular Dowels allows more room for waterlines by superimposing the dowel pin and cap screw as shown at the right.



NOM. DIA	O.D. ± .0002	I.D.	L STANDARD LENGTHS (PRICE EACH)						
			3/8	1/2	7/8	13/8	17/8	23/8	27/8
3/8	.3752	.260	⍰	—	⍰	—	—	—	—
5/8	.6252	.385	—	⍰	—	⍰	⍰	⍰	—
3/4	.7502	.510	⍰	⍰	—	⍰	⍰	⍰	⍰
7/8	.8752	.635	—	⍰	—	—	—	⍰	⍰

⍰ = IN STOCK

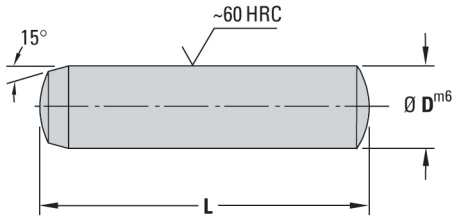


AS USED IN DIE BASE ASSEMBLIES

Dowel Pins - Metric
Dowel Pins with Internal Thread (Pull Dowels)

Dowel Pins – DP (Metric)

Information KEY:
D = Pin Outside Diameter
L = Length
Standard: DIN 6325, ISO 8734
Material: Per DIN and ISO Specifications
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	L																		
		6	8	10	12	14	16	18	20	24	28	32	36	40	50	60	80	100	120	140
DP	2		⚡																	
	3			⚡																
	4																			
	5				⚡		⚡		⚡											
	6								⚡	⚡		⚡								
	8								⚡	⚡		⚡		⚡		⚡				
	10									⚡		⚡		⚡		⚡	⚡			
	12											⚡		⚡		⚡	⚡			
	16																			
	20															⚡				

HOW to order: specify Item Number with prefix, D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	L
DP		

EXAMPLE:

PREFIX	D	L
DP	2	8

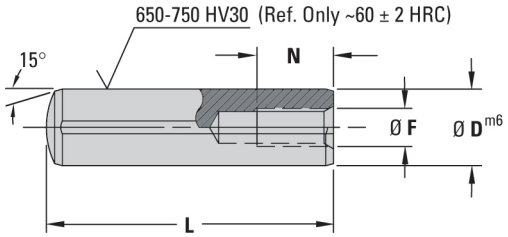
EXAMPLE:

PREFIX	D	L
DP	20	60

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Dowel Pins with Internal Thread/Pull Dowels – WZ7005

Information KEY:
D = Pin Outside Diameter
F = Tap Diameter
L = Length
N = Tap Depth
Standard: DIN EN 28735 – Type A
Material: Per DIN Specification
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	F	N	L									
				020	024	028	032	036	040	050	060	080	100
WZ7005	06	M4	6	⚡			⚡		⚡				
	08	M5	8						⚡	⚡	⚡		
	10	M6	10						⚡		⚡		
	12	M6	12						⚡		⚡		
	14	M8	12										
	16	M8	16										
	20	M10	20										

HOW to order: specify Item Number with prefix, D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	L
WZ7005		

EXAMPLE:

PREFIX	D	L
WZ7005	06	020

EXAMPLE:

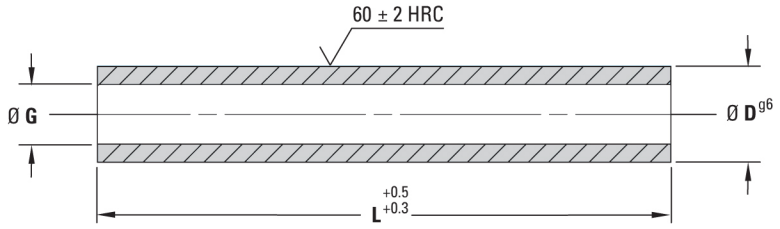
PREFIX	D	L
WZ7005	12	040

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Tubular Dowels- Washer/Tubular Dowels - Metric Stop Disk for Ejector Plates

Tubular Dowels – R09

Information KEY:
D = Outside Diameter
G = Inside Diameter
L = Length
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Dimensions: Shown in Millimeters (mm)



ITEM PREFIX	D	G	L													
			020	030	040	050	060	070	080	100	120	140	160	180	200	240	300
R09	10	6.2			⚡												
	14	8.5															
	18	10.5					⚡		⚡								
	24	13					⚡		⚡		⚡						
	30	17							⚡		⚡		⚡	⚡			

HOW to order: specify Item Number with prefix, D diameter and L length. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	L
R09		

EXAMPLE:
PREFIX D L
R09 10 040

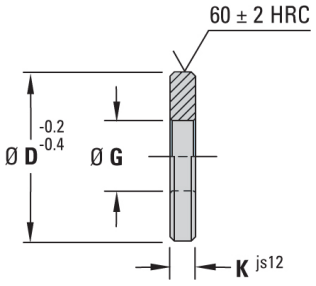
EXAMPLE:
PREFIX D L
R09 30 180

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us

Washer/Tubular Dowel (Disk for Tubular Dowels) – R091

Information KEY:
D = Outside Diameter
G = Inside Diameter
K = Thickness
Standard: Euro-Series
Material: 1.7131 (AISI 5115 Type) Steel
Surface Treatment: Case Hardened
Dimensions: Shown in Millimeters (mm)

ITEM NUMBER	D	K	G	AVAILABILITY
R091 14 3	14	003	6.2	⚡
R091 18 4	18	004	8.5	⚡
R091 24 5	24	005	10.5	⚡
R091 30 6	30	006	13.0	⚡
R091 40 8	40	008	17.0	⚡



HOW to order: specify Item Number. Include zeros as shown, but omit all spaces (spaces are only shown here for easier reading).

Prefix	D	K
RO91		

EXAMPLE:
PREFIX D K
R091 14 003

EXAMPLE:
PREFIX D K
R091 40 008

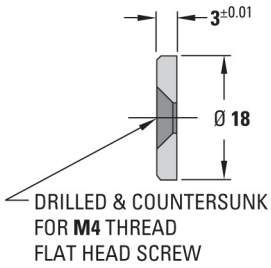
KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact D-M-E

Stop Disk for Ejector Plates – R18

Information KEY:
Standard: Euro-Series
Material: 1.1191 (AISI 1045 Type) Steel
Dimensions: Shown in Millimeters (mm)

ITEM NUMBER	AVAILABILITY
R18 18	⚡

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact us



HOW to order: specify Item Number. Omit spaces (spaces are only shown here for easier reading).

Use with SM4 8 Flat Head Screw (M4 thread x 8mm long) which must be purchased separately. See Flat Head Screws above.

Die Springs
Medium Duty - (Color Coded Blue)

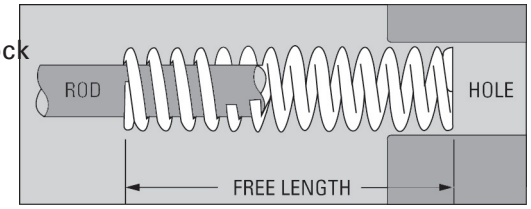
Medium Duty Die Springs (Blue) – SMD



Maximum Deflection: 50% of Free Length
Efficient Operating Range: 25% to 35% of Free Length

(LBS X .454 = KG)

Manufactured by Raymond® from a special rectangular-shaped, round-cornered chromium alloy. Provides high resistance to shock loads, increased deflection, wider operating temperatures and longer life. Color-coded by work range to simplify selection and



HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 50% DEFLEC. (LBS)
3/8 9.5MM	3/16 4.7MM	SMD1004	1.00	25.40	6.0	30.0
		SMD1005	1.25	31.75	5.4	33.8
		SMD1006	1.50	38.10	4.0	30.0
		SMD1007	1.75	44.45	3.4	29.8
		SMD1008	2.00	50.80	2.8	28.0
		SMD1010	2.50	63.50	2.4	30.0
WIRE .039 X .070		SMD1012	3.00	76.20	2.1	31.5
		SMD1048	12.00	304.80	0.6	36.0
1/2 13MM	9/32 7MM	SMD2004	1.00	25.40	11.0	55.0
		SMD2005	1.25	31.75	8.2	51.3
		SMD2006	1.50	38.10	6.8	51.0
		SMD2007	1.75	44.45	6.0	52.5
		SMD2008	2.00	50.80	5.5	55.0
		SMD2010	2.50	63.50	4.5	56.3
		SMD2012	3.00	76.20	3.5	52.5
		SMD2014	3.50	88.90	3.0	52.5
		SMD2018	4.50	114.30	2.5	56.3
		SMD2022	5.50	139.70	2.1	57.8
		SMD2026	6.50	165.10	1.4	45.5
WIRE .052 X .093		SMD2030	7.50	190.50	1.2	45.0
		SMD2048	12.00	304.80	0.7	42.0
5/8 16MM	11/32 8.7MM	SMD3004	1.00	25.40	16.4	82.0
		SMD3005	1.25	31.75	12.8	80.0
		SMD3006	1.50	38.10	10.8	81.0
		SMD3007	1.75	44.45	9.6	84.0
		SMD3008	2.00	50.80	8.8	88.0
		SMD3010	2.50	63.50	6.0	75.0
		SMD3012	3.00	76.20	5.6	84.0
		SMD3014	3.50	88.90	4.8	84.0
WIRE .069 X .109		SMD3016	4.00	101.60	4.4	88.0
		SMD3048	12.00	304.80	1.6	96.0
3/4 19.5MM	3/8 9.5MM	SMD4004	1.00	25.40	31.2	156.0
		SMD4005	1.25	31.75	25.6	160.0
		SMD4006	1.50	38.10	20.0	150.0
		SMD4007	1.75	44.45	17.6	154.0
		SMD4008	2.00	50.80	14.4	144.0
		SMD4010	2.50	63.50	12.0	150.0
		SMD4012	3.00	76.20	9.6	144.0
		SMD4014	3.50	88.90	8.0	140.0
		SMD4016	4.00	101.60	7.2	144.0
		SMD4018	4.50	114.30	6.4	144.0
		SMD4020	5.00	127.00	6.0	150.0
		SMD4022	5.50	139.70	5.5	151.3
		SMD4024	6.00	152.40	5.0	150.0
		SMD4026	6.50	165.10	4.5	146.3
WIRE .075 X .165		SMD4030	7.50	190.50	3.8	142.5
		SMD4048	12.00	304.80	2.4	144.0
1 25.5MM	1/2 13MM	SMD5004	1.00	25.40	55.0	275.0
		SMD5005	1.25	31.75	45.0	281.3
		SMD5006	1.50	38.10	35.0	262.5
		SMD5007	1.75	44.45	30.0	262.5
		SMD5008	2.00	50.80	26.0	260.0
		SMD5010	2.50	63.50	20.0	250.0

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 50% DEFLEC. (LBS)
1" 25.5MM	1/2 13MM	SMD5012	3.00	76.20	16.5	247.5
		SMD5014	3.50	88.90	15.0	262.5
		SMD5016	4.00	101.60	12.0	240.0
		SMD5018	4.50	114.30	10.4	234.0
		SMD5020	5.00	127.00	9.6	240.0
		SMD5022	5.50	139.70	8.8	242.0
		SMD5024	6.00	152.40	8.0	240.0
		SMD5028	7.00	177.80	7.2	252.0
WIRE .100 X .215		SMD5032	8.00	203.20	6.0	240.0
		SMD5048	12.00	304.80	4.0	240.0
11/4 32MM	5/8 16MM	SMD6006	1.50	38.10	49.6	372.0
		SMD6007	1.75	44.45	42.4	371.0
		SMD6008	2.00	50.80	35.2	352.0
		SMD6010	2.50	63.50	28.8	360.0
		SMD6012	3.00	76.20	24.0	360.0
		SMD6014	3.50	88.90	20.0	350.0
		SMD6016	4.00	101.60	17.6	352.0
		SMD6018	4.50	114.30	16.0	360.0
		SMD6020	5.00	127.00	13.6	340.0
		SMD6022	5.50	139.70	12.8	352.0
		SMD6024	6.00	152.40	12.0	360.0
		SMD6028	7.00	177.80	10.4	364.0
		SMD6032	8.00	203.20	8.8	352.0
WIRE .115 X .285		SMD6040	10.00	254.00	7.2	360.0
		SMD6048	12.00	304.80	6.0	360.0
11/2 38.5MM	3/4 19.5MM	SMD7008	2.00	50.80	53.0	530.0
		SMD7010	2.50	63.50	45.0	562.5
		SMD7012	3.00	76.20	36.0	540.0
		SMD7014	3.50	88.90	30.0	525.0
		SMD7016	4.00	101.60	27.0	540.0
		SMD7018	4.50	114.30	23.0	517.5
		SMD7020	5.00	127.00	21.0	525.0
		SMD7022	5.50	139.70	18.5	508.8
		SMD7024	6.00	152.40	17.0	510.0
		SMD7028	7.00	177.80	14.5	507.5
		SMD7032	8.00	203.20	12.8	512.0
WIRE .135 X .345		SMD7040	10.00	254.00	10.0	500.0
		SMD7048	12.00	304.80	8.0	480.0
2 51MM	1 25.5MM	SMD8010	2.50	63.50	100.0	1250.0
		SMD8012	3.00	76.20	83.0	1245.0
		SMD8014	3.50	88.90	64.8	1134.0
		SMD8016	4.00	101.60	60.0	1200.0
		SMD8018	4.50	114.30	53.0	1192.5
		SMD8020	5.00	127.00	47.0	1175.0
		SMD8022	5.50	139.70	39.2	1078.0
		SMD8024	6.00	152.40	39.0	1170.0
		SMD8028	7.00	177.80	31.2	1092.0
		SMD8032	8.00	203.20	28.5	1140.0
WIRE .195 X .468		SMD8040	10.00	254.00	20.8	1040.0
		SMD8048	12.00	304.80	17.5	1050.0

Die Springs
Medium Heavy duty (Color Coded Red)

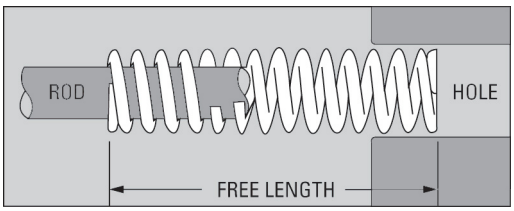
Medium Heavy Duty Die Springs (Red) – SMH

Maximum Deflection: 37% of Free Length

Efficient Operating Range: 20% to 25% of Free Length

Manufactured by Raymond® from a special rectangular-shaped, round-cornered chromium alloy. Provides high resistance to shock loads, increased deflection, wider operating temperatures and longer life. Color-coded by work range to simplify selection and specification.





(LBS X .454 = KG)

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 37% DEFLEC. (LBS)
3/8 9.5MM	3/16 4.7MM	SMH1004	1.00	25.40	9.0	33.3
		SMH1005	1.25	31.75	7.3	33.8
		SMH1006	1.50	38.10	6.7	37.2
		SMH1007	1.75	44.45	5.8	37.6
		SMH1008	2.00	50.80	5.0	37.0
		SMH1010	2.50	63.50	4.2	38.9
WIRE .046 X .073		SMH1012	3.00	76.20	3.0	33.3
		SMH1048	12.00	304.80	0.9	40.0
1/2 13MM	9/32 7MM	SMH2004	1.00	25.40	16.8	62.2
		SMH2005	1.25	31.75	13.0	60.1
		SMH2006	1.50	38.10	9.5	52.7
		SMH2007	1.75	44.45	8.5	55.0
		SMH2008	2.00	50.80	7.5	55.5
		SMH2010	2.50	63.50	6.0	55.5
		SMH2012	3.00	76.20	5.7	63.3
WIRE .061 X .093		SMH2014	3.50	88.90	4.0	51.8
		SMH2048	12.00	304.80	1.2	53.3
5/8 16MM	11/32 8.7MM	SMH3004	1.00	25.40	30.0	111.0
		SMH3005	1.25	31.75	21.5	99.4
		SMH3006	1.50	38.10	19.0	105.5
		SMH3007	1.75	44.45	16.8	108.8
		SMH3008	2.00	50.80	14.8	109.5
		SMH3010	2.50	63.50	11.5	106.4
		SMH3012	3.00	76.20	10.0	111.0
		SMH3014	3.50	88.90	8.5	110.1
WIRE .081 X .123		SMH3016	4.00	101.60	7.6	112.5
		SMH3048	12.00	304.80	2.7	119.9
3/4 19.5MM	3/8 9.5MM	SMH4004	1.00	25.40	50.0	185.0
		SMH4005	1.25	31.75	38.0	175.8
		SMH4006	1.50	38.10	32.0	177.6
		SMH4007	1.75	44.45	28.8	186.5
		SMH4008	2.00	50.80	24.8	183.5
		SMH4010	2.50	63.50	19.2	177.6
		SMH4012	3.00	76.20	14.4	159.8
		SMH4014	3.50	88.90	12.8	165.8
		SMH4016	4.00	101.60	12.0	177.6
		SMH4018	4.50	114.30	11.2	186.5
		SMH4020	5.00	127.00	9.0	166.5
		SMH4022	5.50	139.70	8.0	162.8
WIRE .093 X .156		SMH4024	6.00	152.40	7.5	166.5
		SMH4048	12.00	304.80	3.6	159.8
1" 25.5MM	1/2 13MM	SMH5004	1.00	25.40	76.0	281.2
		SMH5005	1.25	31.75	62.4	288.6
		SMH5006	1.50	38.10	49.6	275.3
		SMH5007	1.75	44.45	44.0	284.9
		SMH5008	2.00	50.80	40.0	296.0
		SMH5010	2.50	63.50	31.0	286.8
		SMH5012	3.00	76.20	25.0	277.5
		SMH5014	3.50	88.90	21.6	279.7
		SMH5016	4.00	101.60	18.4	272.3
		SMH5018	4.50	114.30	17.0	283.1
		SMH5020	5.00	127.00	14.4	266.4
		SMH5022	5.50	139.70	12.8	260.5
		SMH5024	6.00	152.40	12.0	266.4
		SMH5028	7.00	177.80	10.0	259.0
WIRE .115 X .218		SMH5032	8.00	203.20	8.8	260.5
		SMH5048	12.00	304.80	6.2	275.3

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 37% DEFLEC. (LBS)
1-1/4 32MM	5/8 16MM	SMH6006	1.50	38.10	114.4	634.9
		SMH6007	1.75	44.45	100.8	652.7
		SMH6008	2.00	50.80	86.4	639.4
		SMH6010	2.50	63.50	62.4	577.2
		SMH6012	3.00	76.20	51.2	568.3
		SMH6014	3.50	88.90	44.0	569.8
		SMH6016	4.00	101.60	36.8	544.6
		SMH6018	4.50	114.30	32.0	532.8
		SMH6020	5.00	127.00	29.0	536.5
		SMH6022	5.50	139.70	26.4	537.2
		SMH6024	6.00	152.40	25.0	555.0
		SMH6028	7.00	177.80	20.0	518.0
		SMH6032	8.00	203.20	18.4	544.6
WIRE .156 X .281		SMH6040	10.00	254.00	14.5	536.5
		SMH6048	12.00	304.80	12.4	550.6
1-1/2 38.5MM	3/4 19.5MM	SMH7008	2.00	50.80	108.0	799.2
		SMH7010	2.50	63.50	85.6	791.8
		SMH7012	3.00	76.20	62.4	692.6
		SMH7014	3.50	88.90	52.8	683.8
		SMH7016	4.00	101.60	48.0	710.4
		SMH7018	4.50	114.30	43.2	719.3
		SMH7020	5.00	127.00	36.8	680.8
		SMH7022	5.50	139.70	34.4	700.0
		SMH7024	6.00	152.40	30.4	674.9
		SMH7028	7.00	177.80	26.4	683.8
		SMH7032	8.00	203.20	22.0	651.2
WIRE .187 X .312		SMH7040	10.00	254.00	17.6	651.2
		SMH7048	12.00	304.80	14.4	639.4
2 51MM	1 25.5MM	SMH8010	2.50	63.50	118.4	1095.2
		SMH8012	3.00	76.20	96.0	1065.6
		SMH8014	3.50	88.90	80.0	1036.0
		SMH8016	4.00	101.60	66.4	982.7
		SMH8018	4.50	114.30	60.0	999.0
		SMH8020	5.00	127.00	56.0	1036.0
		SMH8022	5.50	139.70	50.4	1025.6
		SMH8024	6.00	152.40	47.2	1047.8
		SMH8028	7.00	177.80	40.0	1036.0
		SMH8032	8.00	203.20	35.2	1041.9
WIRE .225 X .437		SMH8040	10.00	254.00	26.0	962.0
		SMH8048	12.00	304.80	22.4	994.6

The word "RAYMOND" and the gold, red, green and blue color coding of mold and die springs in the heavy duty, medium heavy duty, extra heavy duty and medium duty load ranges, respectively, are registered trademarks of the Barnes Group, Inc.

Die Springs
Heavy Duty (Color Coded Gold)

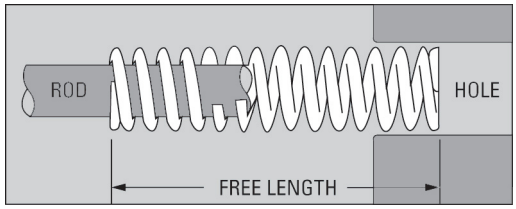
Heavy Duty Die Springs (Gold) – SHD

Maximum Deflection: 30% of Free Length

Efficient Operating Range: 15% to 20% of Free Length

Manufactured by Raymond® from a special rectangular-shaped, round-cornered chromium alloy. Provides high resistance to shock loads, increased deflection, wider operating temperatures and longer life. Color-coded by work range to simplify selection





LBS X .454 = KG)

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 30% DEFLEC. (LBS)
3/8 9.5MM	3/16 4.7MM	SHD1004	1.00	25.40	11.0	33.0
		SHD1005	1.25	31.75	9.8	36.8
		SHD1006	1.50	38.10	8.0	36.0
		SHD1007	1.75	44.45	8.4	44.1
		SHD1008	2.00	50.80	7.2	43.2
		SHD1010	2.50	63.50	5.5	41.3
WIRE .054 X .072		SHD1012	3.00	76.20	4.2	37.8
		SHD1048	12.00	304.80	1.2	43.2
1/2 13MM	9/32 7MM	SHD2004	1.00	25.40	23.6	70.8
		SHD2005	1.25	31.75	18.6	69.8
		SHD2006	1.50	38.10	15.5	69.8
		SHD2007	1.75	44.45	13.8	72.5
		SHD2008	2.00	50.80	11.0	66.0
		SHD2010	2.50	63.50	8.4	63.0
		SHD2012	3.00	76.20	7.4	66.6
WIRE .072 X .095		SHD2014	3.50	88.90	6.0	63.0
		SHD2048	12.00	304.80	1.6	57.6
5/8 16MM	11/32 8.7MM	SHD3004	1.00	25.40	42.4	127.2
		SHD3005	1.25	31.75	29.6	111.0
		SHD3006	1.50	38.10	27.2	122.4
		SHD3007	1.75	44.45	24.0	126.0
		SHD3008	2.00	50.80	20.8	124.8
		SHD3010	2.50	63.50	17.0	127.5
		SHD3012	3.00	76.20	14.4	129.6
		SHD3014	3.50	88.90	12.2	128.1
WIRE .093 X .125		SHD3016	4.00	101.60	10.8	129.6
		SHD3048	12.00	304.80	3.0	108.0
3/4 19.5MM	3/8 9.5MM	SHD4004	1.00	25.40	108.0	324.0
		SHD4005	1.25	31.75	88.0	330.0
		SHD4006	1.50	38.10	65.6	295.2
		SHD4007	1.75	44.45	60.0	315.0
		SHD4008	2.00	50.80	49.6	297.6
		SHD4010	2.50	63.50	40.0	300.0
		SHD4012	3.00	76.20	34.0	306.0
		SHD4014	3.50	88.90	28.0	294.0
		SHD4016	4.00	101.60	25.0	300.0
		SHD4018	4.50	114.30	22.0	297.0
		SHD4020	5.00	127.00	19.5	292.5
		SHD4022	5.50	139.70	17.0	280.5
WIRE .125 X .165		SHD4024	6.00	152.40	16.0	288.0
		SHD4048	12.00	304.80	8.0	288.0
1 25.5MM	1/2 13MM	SHD5004	1.00	25.40	208.0	624.0
		SHD5005	1.25	31.75	171.2	642.0
		SHD5006	1.50	38.10	118.4	532.8
		SHD5007	1.75	44.45	104.0	546.0
		SHD5008	2.00	50.80	90.0	540.0
		SHD5010	2.50	63.50	68.0	510.0
		SHD5012	3.00	76.20	54.4	489.6
		SHD5014	3.50	88.90	45.6	478.8
		SHD5016	4.00	101.60	40.0	480.0
		SHD5018	4.50	114.30	35.2	475.2
		SHD5020	5.00	127.00	31.2	468.0
		SHD5022	5.50	139.70	28.8	475.2
		SHD5024	6.00	152.40	25.6	460.8
		SHD5028	7.00	177.80	22.4	470.4
WIRE .158 X .225		SHD5032	8.00	203.20	19.2	460.8
		SHD5048	12.00	304.80	12.0	432.0

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 30% DEFLEC. (LBS)
11/4 32MM	5/8 16MM	SHD6006	1.50	38.10	212.0	954.0
		SHD6007	1.75	44.45	181.6	953.4
		SHD6008	2.00	50.80	149.6	897.6
		SHD6010	2.50	63.50	117.6	882.0
		SHD6012	3.00	76.20	95.2	856.8
		SHD6014	3.50	88.90	75.2	789.6
		SHD6016	4.00	101.60	66.4	796.8
		SHD6018	4.50	114.30	58.4	788.4
		SHD6020	5.00	127.00	53.0	795.0
		SHD6022	5.50	139.70	47.2	778.8
		SHD6024	6.00	152.40	42.4	763.2
		SHD6028	7.00	177.80	36.8	772.8
		SHD6032	8.00	203.20	32.8	787.2
WIRE .200 X .295		SHD6040	10.00	254.00	25.6	768.0
		SHD6048	12.00	304.80	20.8	748.8
11/2 38.5MM	3/4 19.5MM	SHD7008	2.00	50.80	190.4	1142.4
		SHD7010	2.50	63.50	155.0	1162.5
		SHD7012	3.00	76.20	130.0	1170.0
		SHD7014	3.50	88.90	106.4	1117.2
		SHD7016	4.00	101.60	91.2	1094.4
		SHD7018	4.50	114.30	78.4	1058.4
		SHD7020	5.00	127.00	71.2	1068.0
		SHD7022	5.50	139.70	64.0	1056.0
		SHD7024	6.00	152.40	58.4	1051.2
		SHD7028	7.00	177.80	49.6	1041.6
		SHD7032	8.00	203.20	43.2	1036.8
WIRE .225 X .350		SHD7040	10.00	254.00	34.4	1032.0
		SHD7048	12.00	304.80	28.8	1036.8
2 51MM	1 25.5MM	SHD8010	2.50	63.50	260.0	1950.0
		SHD8012	3.00	76.20	200.0	1800.0
		SHD8014	3.50	88.90	170.0	1785.0
		SHD8016	4.00	101.60	150.0	1800.0
		SHD8018	4.50	114.30	120.0	1620.0
		SHD8020	5.00	127.00	110.0	1650.0
		SHD8022	5.50	139.70	100.0	1650.0
		SHD8024	6.00	152.40	94.0	1692.0
		SHD8028	7.00	177.80	82.0	1722.0
		SHD8032	8.00	203.20	73.0	1752.0
WIRE .280 X .470		SHD8040	10.00	254.00	55.0	1650.0
		SHD8048	12.00	304.80	42.0	1512.0

The word "RAYMOND" and the gold, red, green and blue color coding of mold and die springs in the heavy duty, medium heavy duty, extra heavy duty and medium duty load ranges, respectively, are registered trademarks of the Barnes Group, Inc.

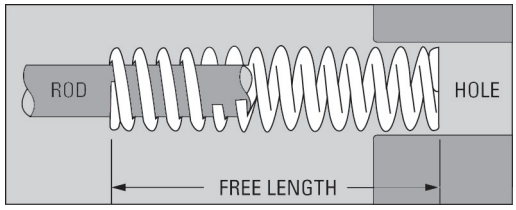
Die Springs
Extra Heavy Duty (Color Coded Green)

Extra Heavy Duty Die Springs (Green) – SEH

Maximum Deflection: 25% of Free Length
Efficient Operating Range: 15% of Free Length

Manufactured by Raymond® from a special rectangular-shaped, round-cornered chromium alloy. Provides high resistance to shock loads, increased deflection, wider operating temperatures and longer life. Color-coded by work range to simplify selection and specification.





(LBS X .454 = KG)

HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 25% DEFLEC. (LBS)
3/8 9.5MM	3/16 4.7MM	SEH1004	1.00	25.40	22.0	55.0
		SEH1005	1.25	31.75	16.0	50.0
		SEH1006	1.50	38.10	12.5	46.9
		SEH1007	1.75	44.45	11.5	50.3
		SEH1008	2.00	50.80	9.0	45.0
		SEH1010	2.50	63.50	7.0	43.8
WIRE .059 X .080		SEH1012	3.00	76.20	6.5	48.8
		SEH1048	12.00	304.80	1.5	45.0
1/2 13MM	9/32 7MM	SEH2004	1.00	25.40	32.0	80.0
		SEH2005	1.25	31.75	24.0	75.0
		SEH2006	1.50	38.10	20.0	75.0
		SEH2007	1.75	44.45	17.0	74.4
		SEH2008	2.00	50.80	14.0	70.0
		SEH2010	2.50	63.50	11.5	71.9
		SEH2012	3.00	76.20	9.0	67.5
WIRE .084 X .097		SEH2014	3.50	88.90	8.0	70.0
		SEH2048	12.00	304.80	2.5	75.0
5/8 16MM	11/32 8.7MM	SEH3004	1.00	25.40	63.0	157.5
		SEH3005	1.25	31.75	47.0	146.9
		SEH3006	1.50	38.10	38.0	142.5
		SEH3007	1.75	44.45	32.0	140.0
		SEH3008	2.00	50.80	29.0	145.0
		SEH3010	2.50	63.50	22.0	137.5
		SEH3012	3.00	76.20	19.0	142.5
		SEH3014	3.50	88.90	16.0	140.0
WIRE .110 X .126		SEH3016	4.00	101.60	13.5	135.0
		SEH3048	12.00	304.80	4.5	135.0
3/4 19.5MM	3/8 9.5MM	SEH4004	1.00	25.40	140.0	350.0
		SEH4005	1.25	31.75	110.0	343.8
		SEH4006	1.50	38.10	89.0	333.8
		SEH4007	1.75	44.45	75.0	328.1
		SEH4008	2.00	50.80	68.0	340.0
		SEH4010	2.50	63.50	50.0	312.5
		SEH4012	3.00	76.20	40.5	303.8
		SEH4014	3.50	88.90	34.5	301.9
		SEH4016	4.00	101.60	30.0	300.0
		SEH4018	4.50	114.30	26.5	298.1
		SEH4020	5.00	127.00	23.5	293.8
		SEH4022	5.50	139.70	21.5	295.6
WIRE .135 X .165		SEH4024	6.00	152.40	19.5	292.5
		SEH4048	12.00	304.80	9.5	285.0
1" 25.5MM	1/2 13MM	SEH5006	1.50	38.10	160.0	600.0
		SEH5008	2.00	50.80	116.0	580.0
		SEH5010	2.50	63.50	89.6	560.0
		SEH5012	3.00	76.20	73.6	552.0
		SEH5014	3.50	88.90	62.4	546.0
		SEH5016	4.00	101.60	55.2	552.0
		SEH5018	4.50	114.30	48.8	549.0
		SEH5020	5.00	127.00	43.2	540.0
WIRE .188 X .225		SEH5024	6.00	152.40	36.0	540.0
		SEH5048	12.00	304.80	17.6	528.0

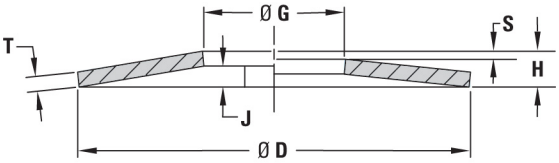
HOLE DIA	ROD DIA	ITEM NUMBER	FREE LENGTH INCH	FREE LENGTH MM	APPROX LOAD AT 1/10" DEFLEC. (LBS)	LOAD AT 25% DEFLEC. (LBS)
1-1/4 32MM	5/8 16MM	SEH6008	2.00	50.80	192.0	960.0
		SEH6010	2.50	63.50	144.0	900.0
		SEH6012	3.00	76.20	118.4	888.0
		SEH6014	3.50	88.90	100.8	882.0
		SEH6016	4.00	101.60	84.0	840.0
		SEH6018	4.50	114.30	78.4	882.0
		SEH6020	5.00	127.00	68.0	850.0
		SEH6024	6.00	152.40	56.0	840.0
		SEH6032	8.00	203.20	41.6	832.0
WIRE .225 X .295		SEH6040	10.00	254.00	33.6	840.0
		SEH6048	12.00	304.80	26.4	792.0
1-1/2 38.5MM	3/4 19.5MM	SEH7008	2.00	50.80	376.0	1880.0
		SEH7010	2.50	63.50	294.4	1840.0
		SEH7012	3.00	76.20	231.2	1734.0
		SEH7014	3.50	88.90	196.0	1715.0
		SEH7016	4.00	101.60	171.2	1712.0
		SEH7018	4.50	114.30	148.0	1665.0
		SEH7020	5.00	127.00	136.0	1700.0
		SEH7024	6.00	152.40	110.4	1656.0
		SEH7032	8.00	203.20	80.8	1616.0
WIRE .300 X .350		SEH7040	10.00	254.00	67.2	1680.0
		SEH7048	12.00	304.80	54.4	1632.0
2 51MM	1 25.5MM	SEH8010	2.50	63.50	381.6	2385.0
		SEH8012	3.00	76.20	312.0	2340.0
		SEH8014	3.50	88.90	254.4	2226.0
		SEH8016	4.00	101.60	220.0	2200.0
		SEH8018	4.50	114.30	188.8	2124.0
		SEH8020	5.00	127.00	172.8	2160.0
		SEH8024	6.00	152.40	141.6	2124.0
		SEH8032	8.00	203.20	100.0	2000.0
WIRE .365 X .460		SEH8040	10.00	254.00	84.0	2100.0
		SEH8048	12.00	304.80	71.2	2136.0

The word "RAYMOND" and the gold, red, green and blue color coding of mold and die springs in the heavy duty, medium heavy duty, extra heavy duty and medium duty load ranges, respectively, are registered trademarks of the Barnes Group, Inc.

Belleville Washers (Disk Springs) - Metric

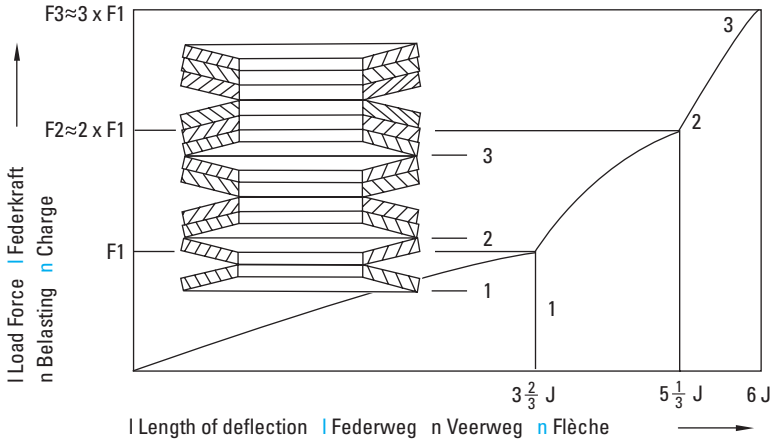
Belleville Washers (Disc Springs) – WZ8050



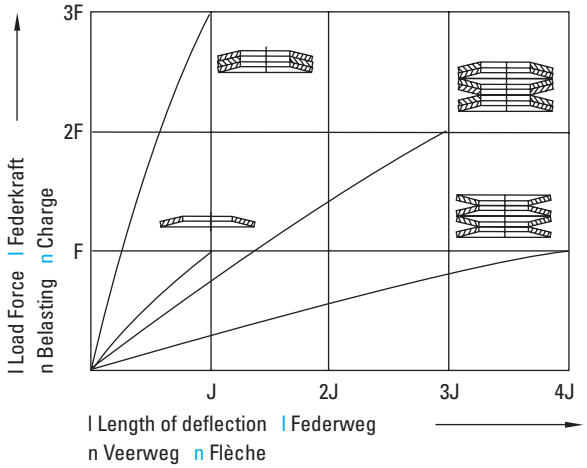


Spring Load versus Deflection Data

l Applications l Anwendungsbeispeile (PROGRESSIVE TYPE APPLICATION)
n Toepassingen n Applications



l Applications l Anwendungsbeispeile
n Toepassingen n Applications



Information KEY:
D = Outside Diameter
F = Load Force in Newtons (at specified "S" Deflections)
G = Inside Diameter
H = Overall Height (of one unloaded washer)
J = Maximum Theoretical Deflection to flat
S = Deflection (shown for % of Maximum Theoretical Deflection J)
T = Thickness
Standard: DIN 2093
Material: DIN 50 CrV 4 (AISI 6150 Type) Steel
Max. Temp.: 300°C (572°F)
Dimensions: Shown in Millimeters (mm)

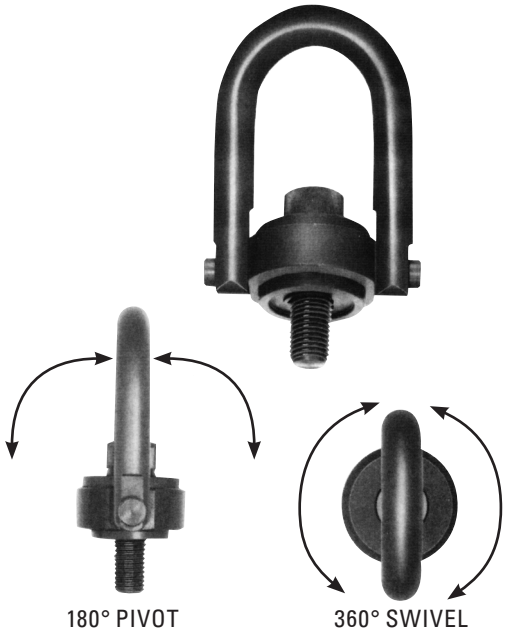
ITEM NUMBER	Ø D	Ø G	T	H	J	S = 0.25 X J		S = 0.5 X J		S = 0.75 X J		AVAIL
						S	F	S	F	S	F	
WZ8050 160 082 090	16.0	08.2	0.90	1.25	0.35	0.087	363	0.175	697	0.262	1013	⚡
WZ8050 180 092 100	18.0	09.2	1.00	1.40	0.4	0.1	451	0.2	865	0.3	1254	⚡
WZ8050 200 102 110	20.0	10.2	1.10	1.55	0.45	0.112	548	0.225	1050	0.337	1521	⚡
WZ8050 250 122 090	25.0	12.2	0.90	1.60	0.7	0.175	367	0.35	644	0.525	862	⚡
WZ8050 315 163 125	31.5	16.3	1.25	2.15	0.9	0.225	791	0.45	1409	0.675	1913	⚡
WZ8050 400 204 225	40.0	20.4	2.25	3.15	0.9	0.225	2336	0.45	4481	0.675	6500	⚡
WZ8050 500 254 250	50.0	25.4	2.50	3.90	1.4	0.35	3473	0.7	6437	1.05	9063	⚡
WZ8050 500 254 300	50.0	25.4	3.00	4.10	1.1	0.275	4255	0.55	8214	0.825	11,976	⚡

HOW TO ORDER: SPECIFY ITEM NUMBER. OMIT SPACES (SPACES ARE ONLY SHOWN HERE FOR EASIER READING).

KEY TO CHART
⚡ Items in stock
2-3 week delivery
Contact DME

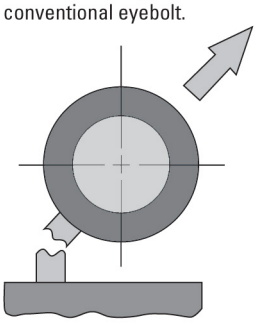
Hoist Rings - INCH

Whether you're hoisting an 800-pound die base or a 15,000-pound piece of die room equipment, DME Hoist Rings can add a margin of performance and convenience to the job at hand. The inherent danger posed by conventional static eyebolts (side-load breakage and hook disengagement) combined with stricter safety regulations make our Hoist Rings an important addition to any die shop or plant. Unlike eyebolts, these Hoist Rings will not yield to heavy side loads within their rated capacity and can pivot 180° and swivel 360° to compensate for pitch, roll and sway when lifting heavy, unbalanced loads. As with all mechanical devices, regular inspection for wear, and strict adherence to installation and operatingguidelines is necessary to prevent failure due to misuse.



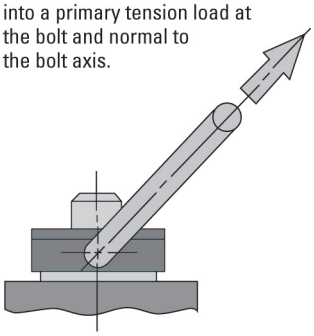
- Safer and stronger than conventional eyebolts
- Pivots and swivels to compensate for pitch, roll and sway when lifting heavy or unbalanced loads
- Prevents accidents caused by eyebolt breakage or lifting hook disengagement
- Will not yield to heavy side loads when used in accordance with manufacturer's instructions
- Manufactured from high-quality alloy steel (certified heat treatment)
- Meets or exceeds MIL-STD-1365 (OR-11) and MIL-STD-209C
- Seven sizes to handle loads from 800 to 15,000 pounds
- Safety factor is 5 times the rated load capacity in any direction

See what happens when heavy side loads are applied to a conventional eyebolt.



EXCESSIVE SIDE LOADS CAN CAUSE BOLT FAILURE.

The same load applied to a D-M-E Hoist Ring is translated into a primary tension load at the bolt and normal to the bolt axis.



HIGH-TENSION LOADS ARE WELL WITHIN THE DESIGNED SAFETY LIMITS OF THE STRESSED HOIST RING.



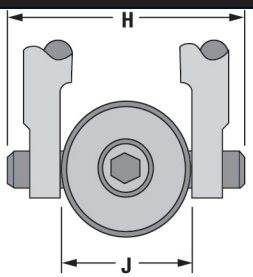
Hoist Rings - INCH
Installation and Ordering Information

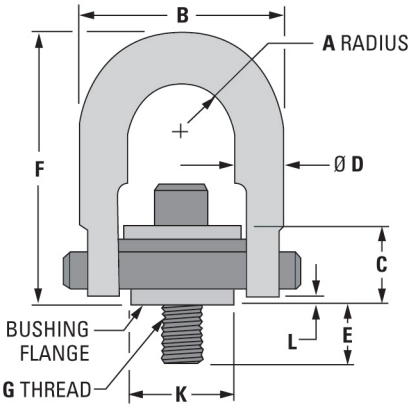
MATERIAL: ALLOY STEEL (CERTIFIED HEAT TREATMENT), BLACK OXIDESAFETY FACTOR: 5 TIMES RATED LOAD IN ANY DIRECTIONRANGE OF MOVEMENT.: 360° SWIVEL; 180° PIVOT DIMENSIONS: SHOWN IN INCHES (IN)

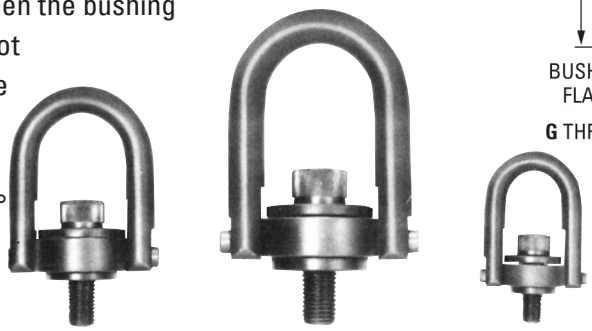
Installation Data

Tap workpiece for hoist ring bolt with axis vertical to mounting surface. Work surface should be flat and smooth to provide full 360° flush seating for the bushing flange. For installation in ferrous materials, the screw should be tightened to the full torque loading recommended in column TL below, +25% – 0.

Safety Note: : Some loosening may develop after prolonged service in a permanent installation. It is advisable to periodically retighten the mounting bolt to maintain the specified torque value.) For maximum safety with soft metal workpieces such as aluminum, use extra length bolts with minimum effective thread engagement of 2 times thread diameter. The use of free fit spacers between the bushing flange and mounting surface is not recommended, as this will reduce the safe load rating on angularly applied loads. Hoist ring must be free to swivel 360° and pivot 180° at all times.







NOTE: Additional hoist ring sizes and bolt lengths (including metric versions) are also available on

Hoist Rings – SH (includes bolt and retaining ring)

ITEM	RATED LOAD (LBS)	A	B	C	Ø D	E EFFECTIVE THREAD PROJECTION	F	G	H CLEARANCE DIMENSION	J	K	L	TL** FOOT LBS	WEIGHT
SHR0001	800	7/16	15/8	41/64	3/8	9/16	25/8	5/16-18	2	1	3/4	3/32	7	5 OZ.
SHR0002	1,000	7/16	15/8	41/64	3/8	9/16	25/8	3/8-16	2	1	3/4	3/32	12	5 OZ.
SHR0003	2,500	7/8	31/4	15/32	3/4	3/4	43/4	1/2-13	35/8	2	11/2	3/32	28	2 LB. 5 OZ.
SHR0004	4,000	7/8	31/4	15/32	3/4	1	43/4	5/8-11	35/8	2	11/2	3/32	60	2 LB. 7 OZ.
SHR0005	5,000	7/8	31/4	15/32	3/4	1	43/4	3/4-10	35/8	2	11/2	3/32	100	2 LB. 9 OZ.
SHR0006	10,000	113/32	413/16	111/16	1	11/2	61/2	1"-8	51/8	3	25/16	17/64	230	7 LB.
SHR0007	15,000	13/4	6	21/8	11/4	17/8	83/4	11/4-7	61/2	33/4	31/4	11/32	470	14 LB.

Replacement Bolt Kits – SHK (includes bolt and retaining ring)

ITEM NUMBER	USED WITH	SIZE	E
SHK0001	SHR0001	5/16 -18 X 11/4	9/16
SHK0002	SHR0002	3/8 -16 X 11/4	9/16
SHK0003	SHR0003	1/2 -13 X 2	3/4
*SHK0004		1/2 -13 X 21/4	1
SHK0005	SHR0004	5/8 -11 X 21/4	1
*SHK0006		5/8 -11 X 21/2	11/4
SHK0007	SHR0005	3/4 -10 X 21/4	1
*SHK0008		3/4 -10 X 23/4	11/2
SHK0009	SHR0006	1"-8 X 31/4	11/2
*SHK0010		1"-8 X 33/4	2
SHK0011	SHR0007	11/4 -7 X 4	17/8

**RECOMMENDED TORQUE LOAD +25% – 0



NOTES:

E = EFFECTIVE THREAD PROJECTION

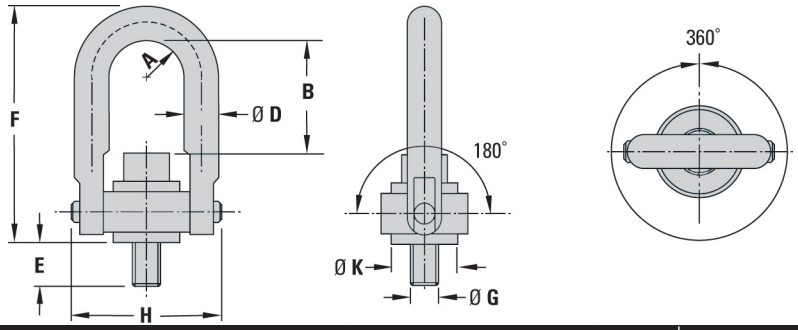
*BOLTS NOT MARKED WITH AN ASTERISK (*) ARE IDENTICAL TO THOSE SUPPLIED WITH HOIST RINGS. BOLTS MARKED WITH AN ASTERISK ARE LONGER, TO PROVIDE THREAD PROJECTION OF TWICE THE BOLT DIAMETER, RECOMMENDED FOR USE WITH SOFTER METALS.

Hoist Rings - Metric

Hoist Rings – SHM, SHMR

Anillos elevadores | Olhais de suspensão articulados | Anneaux de levage articulés |

Information KEY:
A = U-Bar Inside Radius
B = Inside U-Bar Clearance
D = U-Bar Diameter
E = Thread Length Projection
F = U-Bar Height
G = Thread Diameter and Pitch
H = Dimension Over Pins
K = Flange Diameter
Material: See Features below
Max. Temp.: 200°C (392°F)
Dimensions: Shown in Millimeters (mm)



HOIST RING ASSEMBLY												REPLACEMENT KIT	
ITEM NUMBER	A	B	D	E	F	G	H	K	TL* (KGM)	P* (KG)	W* (KG)	ITEM NUMBER	G
SHM 0001	10.9	32.0	9.7	12.5	67.8	M8 X 1.25	46.7	19.0	1.0	400	0.17	SHMR 0001	M8 X 1.25
SHM 0002	10.9	30.0	9.7	17.5	67.8	M10 X 1.50	46.7	19.0	1.7	450	0.17	SHMR 0002	M10 X 1.50
SHM 0003	22.4	60.5	19.0	19.0	121.4	M12 X 1.75	89.4	38.1	3.8	1050	1.08	SHMR 0003	M12 X 1.75
SHM 0004	22.4	56.5	19.0	29.0	121.4	M16 X 2.00	89.4	38.1	8.2	1900	1.12	SHMR 0004	M16 X 2.00
SHM 0005	22.4	52.5	19.0	34.0	121.4	M20 X 2.50	89.4	38.1	13.6	2150	1.19	SHMR 0005	M20 X 2.50
SHM 0006	35.6	69.0	25.4	37.0	165.6	M24 X 3.00	130.6	58.7	31.0	4200	3.10	SHMR 0006	M24 X 3.00
SHM 0007	44.5	107.4	31.7	41.9	221.7	M30 X 3.50	165.1	81.0	60.0	7000	6.30	SHMR 0007	M30 X 3.50
SHM 0009	57.2	166.5	44.4	63.5	316.7	M36 X 4.00	217.2	106.4	100.0	11000	15.50	SHMR 0009	M36 X 4.00
SHM 0010	57.2	160.5	44.4	68.0	316.7	M42 X 4.50	217.2	106.4	100.0	12500	16.00	SHMR 0010	M42 X 4.50
SHM 0011	57.2	154.5	44.4	82.4	316.7	M48 X 5.00	217.2	106.4	100.0	13500	16.80	SHMR 0011	M48 X 5.00
SHM 0012	76.2	210.0	57.15	101.6	419.1	M64 X 6.00	297.6	146.0	290.0	22500	40.0	SHMR 0012	M64 X 6.00

REPLACEMENT KIT INCLUDES SCREW AND RETAINING RING

HOW TO ORDER: SPECIFY ITEM NUMBER. OMIT SPACES (SPACES ARE ONLY SHOWN HERE FOR EASIER READING).

NOTE: ALL HOIST RING ASSEMBLIES AND REPLACEMENT KITS LISTED IN CHART ARE IN STOCK. (NO SPECIALS AVAILABLE.)

Features
- Pivots and swivels to compensate for pitch, roll and sway when lifting heavy or unbalanced loads.
- High-strength alloy steel with minimum tensile strength of 1,250 MPa (125 kg/mm2).
- Certified heat treatment with 100% Magnaflux inspection.
- Corrosion-resistant plating.
- Maximum operating temperature 200°C (392°F).
- Safety factor is 5 times the rated load in any direction.

*Note
- Standard tolerance ± 0.8mm.
- E = the use of spacers between bushing flange and mounting surface is not recommended as this will reduce the safety load rating.
- TL = recommended torque load +25% - 0.
- P = rated.
- W = weight (of Hoist Ring Assembly)

CARACTERíSTICAS
- Gira y pivotea para compensar la inclinación, el rodaje y la oscilación al levantar cargas pesadas o sin equilibrio.
- Aleación de acero de gran resistencia con fuerza elástica mínima de 1,250 MPa (125 kg/mm2).
- Tratamiento de calor certificado con inspección Magnaflux del 100%.
- Enchapado resistente a la corrosión.
- Temperatura máxima de operacion: 200°C.
- El factor de seguridad es 5 veces la carga calificada en cualquier direccion.

*NotA
- Tolerancia estándar ±0.8mm.
- E = el uso de espaciadores entre el reborde del cojinete y la superficie de montaje no se recomienda ya que esto reducirá la calificación de seguridad de la carga.
- TL = carga de torsión recomendada + 25% - 0.
- P = carga nominal.
- W = peso.

Merkmale
- Gleichmäßiges anheben von schweren oder einseitigen Lasten durch Drehgelenke und Abstandsausgleichung. Keine Abweichung nach der schweren Lastseite.
- Legierter Spezialstahl mit min. Streckgrenze von 1.250 MPa (125 Kg/mm2)
- Beglaubigte Wärmebehandlung mit 100% iger Magnaflux.
- Kontrolle Korrosionsbeständiger Oberflächenschutz.
- Alle Materialangaben gelten bis zu einer Temp. bis max. 200°C.
- Alle Heberinge sind in allen Richtungen mit 5-facher Sicherheit ausgelegt.

*Bemerkungen
- Allgemeine Toleranzen ± 0.8mm.
- E = zwischen Flansch und Montageoberfläche keine Distanzscheibe einlegen: dadurch wird die Sicherheit der Hebeleistung reduziert.
- TL = empfohlene Drehmomentbelastung.
- P = Nennlast.
- W = Gewicht.

Caractéristiques
- Ils pivotent et tournent pour amortir le balancement des charges lourdes ou déséquilibrées. Résistent aux charges latérales.
- Acier allié avec une résistance de 1.250 MPa (125 kg/mm2).
- Une trempe garantie par une inspection Magnaflux de 100%.
- Résiste à la corrosion grâce à un traitement de surface.
- Température de fonctionnement 200°C.
- Coefficient de sécurité 5:1 quelle que soit l'orientation de la charge.

*Note
- Tolérance standard ± 0.8 mm.
- E = L'emploi d'une rondelle de réglage entre l'anneau et la surface d'appui est à déconseiller. Elle réduirait le coefficient de sécurité.
- TL = couple de serrage + 25% - 0.
- P = charge maximum.
- W = Poids en kg.

CARACTERíSTICAS
- Eles se articulam e giram para compensar a inclinação, rolagem e balanço de cargas pesadas ou desequilibradas.
- Liga de aço de alta resistencia de 1.250 MPa (125 kg/mm2).
- Tratamento a calor, certificado por inspeção 100% Magnaflux.
- Revestimento resistente à corrosão.
- Temperatura máxima operacional de 200°C.
- Coeficiente de segurança de 5 vezes a carga nominal, em qualquer direção.

*NotA
- Tolerancia padrão: ± 0.8mm.
- E = nao se recomenda o uso de espaçadores entre o flange da bucha e a superficie de montagem, pois isto reduziria o valor da carga nominal de segurança.
- TL = carga recomendada de torque + 25% - 0.
- P = carga nominal.
- W = peso.

DME, an essential resource to the customers it serves worldwide, offers the industry's broadest range of market-leading products, unsurpassed knowledge and expertise, a global logistics infrastructure that ensures speed and accuracy, and a support organization unrivaled for its ability to assist customers when and where they need it. A complete line of unit dies, die components, hot runner systems, control systems, MUD quick-change mold systems, mold components, moldmaking and molding equipment supplies, and technical services helps customers compete every step of the way.

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