

EQUIPMENT AND SUPPLIES

D-M-E
Every step of the way



EQUIPMENT AND SUPPLIES

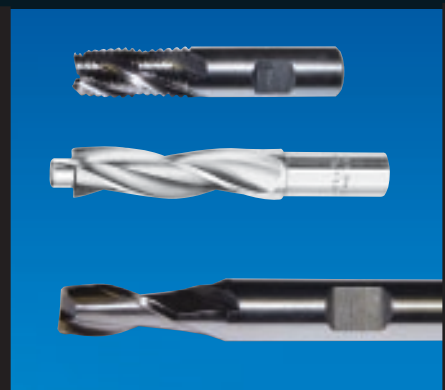
D-M-E
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Terms and Conditions of Sale

1. **FOB POINT / PRICES:** Products are sold F.O.B. point of origin. Any taxes are in addition to the prices and may be invoiced later.
2. **SHIPPING SCHEDULE:** The shipping schedule is our current estimate of delivery dates and we agree to use reasonable efforts to comply with the schedule.
3. **WARRANTY:**
 - (a) Any D-M-E trademarked or tradenamed product or part thereof manufactured by or for us which, under normal operating conditions in the plant of the Buyer thereof, proves defective in material or workmanship, as determined by our inspection, within 12 months from the date of shipment will be replaced or repaired free of charge to Buyer.

This warranty is contingent upon the following conditions: that we promptly receive notice of the defect; that Buyer establish that the product has been properly installed, maintained, and operated within the limits of related and normal usage as specified by us; and that, upon our request, Buyer will return to us at our expense the defective product or part thereof.

(b) The terms of this warranty do not in any way extend to any product or part thereof which have a life, under normal usage, inherently shorter than 12 months.

(c) The conditions of actual production in each end user's plant vary considerably. Therefore, descriptions of the production or performance capabilities of any product or software materials are estimates only and are not warranted.

4. **EXCLUSIONS OF WARRANTIES:** THE WARRANTIES TO REPAIR OR REPLACE DEFECTIVE PRODUCTS OR PARTS AS SET FORTH IN PARAGRAPH 3, AND ANY ADDITIONAL WARRANTY EXPRESSLY STATED TO BE A WARRANTY AND SET FORTH IN WRITING AS PART OF THESE TERMS HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
5. **LIMITATION OF REMEDIES AND LIABILITIES:** UNDER NO CIRCUMSTANCES SHALL WE OR ANY AFFILIATE OF OURS HAVE ANY LIABILITY WHATSOEVER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES HOWSOEVER CAUSED OR ARISING (INCLUDING CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE), such as, but not limited to, loss of profit or revenue; loss of use of the product, part thereof; cost of capital; cost of replacement equipment; or claims resulting from contracts between Buyer, its customers and/or suppliers. Unless expressly provided for herein, in no event shall we or any affiliate of ours assume responsibility or liability for (a) penalties, penalty clauses or liquidated damages clauses of any description, (b) certifications or (c) indemnification of Buyer or others for costs, damages or expenses arising out of or related to the product or part thereof.
6. **CANCELLATION:** Unless otherwise agreed, Buyer may cancel all or any part of the order by written notice received by us before our completion of the order or applicable portion of the order. On receipt of such 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 us 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 our full cost plus a premium in addition to a charge for any packing and storage and less a credit for the balance of the material as scrap.
7. **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, upon Acceptance as specified in Paragraph 8, but in no event later than 30 days from the date of invoice. No cash discount is provided. If, in our judgment, Buyer's financial condition changes, we may stop work until financial arrangements satisfactory to us are made.
8. **ACCEPTANCE OF PRODUCT:** Each such product shall be deemed to be accepted within seven days after delivery of the product to the Buyer, unless we receive written notification of rejection for cause from Buyer within the seven day period.

"Returned Goods": No goods are returnable without prior approval, prepaid transportation and an issued RMA number. All items are subject to our inspection before credit will be allowed. Special mold bases or steel, items involving custom work, or items not shown in our catalog are considered non-returnable. A minimum service charge of 10% will be made on all returned goods. NO GOODS ARE RETURNABLE LATER THAN THIRTY DAYS AFTER RECEIPT OF MERCHANDISE.

9. **PATENT INDEMNITY:** We shall defend any suit or proceeding brought against Buyer and pay all costs and damages awarded against Buyer provided that:
 - (a) The suit or proceeding is based upon a claim that the product or part thereof is an infringement of any claim of a presently existing U.S. patent;
 - (b) The claim of infringement is not based, directly or indirectly, upon (i) the manufacture, use, or sale of any product furnished by us which has been modified without our consent; or, (ii) the manufacture, use, or sale of any combination of a product furnished by us with products not furnished by us; or (iii) performance of a patented process using a product furnished by us or production thereby of a patented product; and,
 - (c) We are notified promptly and given information and assistance (at our expense) and the authority to defend the suit or proceeding. We shall not be responsible hereunder for any settlement made without our written consent nor shall we be responsible for costs or expenses incurred without our written consent. If our product is adjudicated to be an infringement and its use in the U.S. by Buyer is enjoined, we shall, at our own expense, either:
 - (i) procure for Buyer the right to continue using our product;
 - (ii) replace it with a noninfringing product;
 - (iii) modify it so it becomes noninfringing;
 - (iv) remove the product or part thereof and refund Buyer's net book value and transportation costs attributable to it.

The foregoing states our entire liability with respect to any patent infringement by our products or any parts thereof. To the extent that our product or any part thereof is supplied according to specifications and designs furnished by Buyer, Buyer agrees to indemnify us in the manner and to the extent set forth above insofar as the terms thereof are appropriate.

10. **FORCE MAJEURE:** We shall not be liable for any delay in performance or nonperformance which is due to war, fire, flood, acts of God, acts of third parties, acts of governmental authority or any agency or commission thereof, accident, breakdown of equipment, differences with employees or similar or dissimilar causes beyond our reasonable control, including but not limited to, those interfering with production, supply or transportation of products, raw materials or components or our ability to obtain, on terms we deem reasonable, material, labor, equipment or transportation.
11. **ACCEPTANCE OF ORDERS:** Buyer agrees that all orders, including any arising from our Proposal, shall include these terms and conditions only, notwithstanding any different or additional terms that may be embodied in Buyer's order. All orders are subject to our acceptance and we reserve the right to reject orders as, in our sole judgement, mandated by business conditions. We reserve the right to not proceed with any order until all necessary information is received from Buyer.
12. **MERGER CLAUSE:** This Agreement entirely supersedes any prior oral representations, correspondence, proposal, quotation, or agreement. This writing constitutes the final and total expression of such agreement between the parties, and it is a complete and exclusive statement of the terms of that agreement.
13. **ASSIGNMENT:** Neither party may assign this Agreement without the written consent of the other party, except that we may assign this Agreement to a third party that acquires substantially all of our assets or we may assign the flow of funds arising out of this Agreement.
14. **GOVERNING LAW:** This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.

Sales and Ordering Information

U.S.A.

TERMS AND CONDITIONS OF SALE: See previous page.

PHONE ORDERS – TOLL FREE: 800-626-6653. D-M-E's Customer Service Dept. operates Monday through Friday from 8 a.m. to 8 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 D-M-E products or services, provide on-the-spot feedback on product availability and shipping details, or take any messages you wish relayed to your local D-M-E sales, manufacturing or technical service representatives.

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

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

FAX: You may fax your order to:

- D-M-E Customer Service
248-398-6174 • 888-808-4363

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

- D-M-E Company, Department Lock Box 78242, P.O. Box 78000, Detroit, Michigan 48278-0242

WALK-IN ORDERS, PICK-UPS AND RETURNS: If desired, ordered products in stock at your nearest D-M-E 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 or mailed to the Estimating Department of the D-M-E manufacturing location nearest you. Call our toll-free number if desired to clarify location which serves your area.

Estimating locations are:

- 70 East Hillis Street, Youngwood, Pa 15697, FAX: 724-925-2424
- 1117 Fairplains Street, Greenville, MI 48338, Tel. 616-754-4601, FAX: 616-225-3924
- 3275 Deziel Drive, Windsor, Ont N8W 5A5, Tel. 519-948-5001, FAX: 519-948-4652
- 464-466 Windy Point Drive, Glendale Heights, IL 60139, Tel. 630-469-4280, FAX: 630-469-4740 (estimating only)

Please add "D-M-E Company" and "Attn: Estimating Dept." to above addresses when mailing prints. To obtain prices and delivery on special mold base orders or to check status of special work in progress please contact Customer Service.

CANADA

TERMS AND CONDITIONS OF SALE: See previous page.

PHONE ORDERS: Contact our Mississauga, Ontario office at 800-387-6600, FAX: 800-461-9965.

MAIL ORDERS: Send to: D-M-E of Canada, Ltd., 6210 Northwest Drive, Mississauga, Ontario L4V 1J6.

CHECK OR MONEY ORDERS: Make payable to *D-M-E of Canada, Ltd.* Include remittance copy of invoice and mail to Mississauga address above.

WALK-IN ORDERS, PICK-UPS, RETURNS, AND SPECIAL MACHINING: Contact our Mississauga office.

U.S. 800-626-6653 ■ Canada 800-387-6600 ■ www.dme.net

Introduction

D-M-E Company offers a wide range of equipment and supplies for moldmakers and molders. From high-speed cutting tools and a wide variety of finishing and polishing systems to a vast array of maintenance, repair and operation-related products, D-M-E has the products you need to compete every step of the way.

Our line of cutting tools designed for moldmakers ranges from high-speed roughing mills and tapered milling cutters to counterbores, sprue bushing reamers, and dozens of lapping tools.

D-M-E has been an essential finishing and polishing resource to its customers for decades with the Ultraform System that effectively replaces expensive and time-intensive hand-finishing operations. Two models of the ultrasonic device are designed to handle virtually any finishing need. An extensive assortment of tools and accessories come with each unit, and additional tooling is also available.

The Minitor D Series is a popular line of hand pieces that offers the latest in polishing technology while still providing tremendous flexibility and accuracy. The Minitor D series hand pieces are available in several models and with accessory heads to ensure that your finishing and polishing jobs get done to perfection.

An extensive line of files, rifflers, stones, stone holders and many other accessories provide the perfect resource necessary to achieve any finish. And, the D-M-E Mold

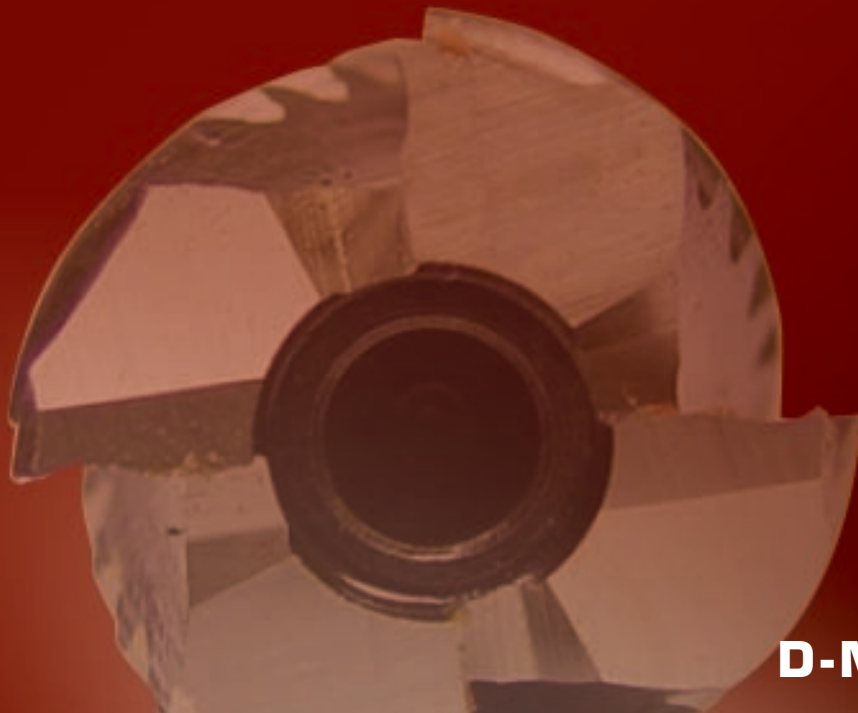
Finish Comparison Kit – featuring 12 samples finished to SPI standards – provides a visual and numerical standard for both the selection of finishes required and a comparison to work in progress.

For high-quality mold repairs, the D-M-E ProWeld Micro-Welding System provides precision results that increase mold life after every repair. The system is safe and easy to operate, and reduces repair costs by up to 85% with special metal alloys developed for all conventional types of steel.

Your molds will always be ready to perform with D-M-E mold sprays. Available in 10-ounce aerosol cans or in one-gallon non-aerosol containers, D-M-E Mold Cleaner, D-M-E Mold Saver and D-M-E Mold Release use the finest ingredients to complete the jobs for which they are intended.

For all of your processing needs, D-M-E Molding Supplies offers thousands of economical, high-quality products from auxiliary equipment such as drying hoppers and storage bins to machine parts like screw tips and machine mounts. All of your plumbing, heating and other processing-related needs are better achieved with the high-quality, low-cost offerings from D-M-E Molding Supplies.



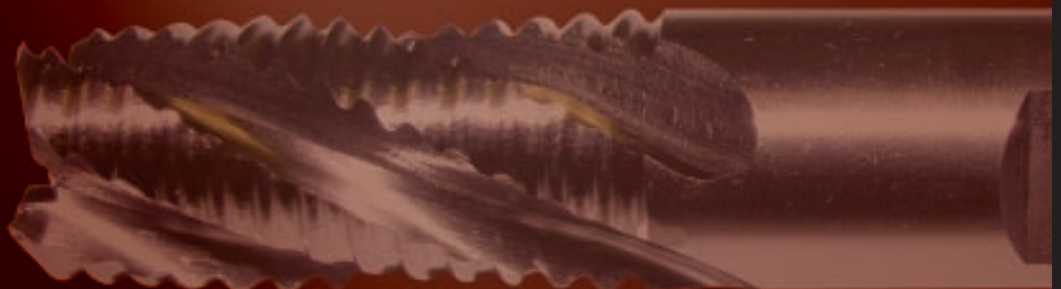


D-M-E Cutting Tools

HIGH-SPEED CUTTING TOOLS
ENGINEERED FOR CONSISTENT
ACCURACY, FASTER PRODUCTION
AND GREATER ECONOMY



Cutting Tools



High-Speed Roughing Mills

- Rounded cutting teeth produce smaller chips to permit feed rates and stock removal up to four times faster than conventional end mills
- Manufactured to close tolerances so they can be used for NC milling

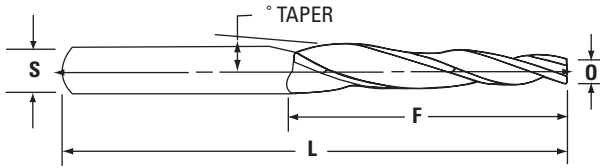


(ITEM NO. RM-34-158)

ITEM NUMBER	MILL DIAMETER	FLUTE LENGTH	SHANK DIAMETER	OVERALL LENGTH	NUMBER OF FLUTES
RM-12-114	1/2	1 1/4	1/2	3 3/4	4
RM-12-200	1/2	2	1/2	4	4
RM-58-158	5/8	1 5/8	5/8	3 3/4	4
RM-58-212	5/8	2 1/2	5/8	4 5/8	4
RM-34-158	3/4	1 5/8	3/4	3 3/8	4
RM-34-300	3/4	3	3/4	5 1/4	4
RM-78-178	7/8	1 7/8	3/4	4 1/8	4
RM-78-312	7/8	3 1/2	7/8	5 3/4	4
RM-100-200	1	2	1	4 1/2	6
RM-100-300	1	3	1	5 1/2	6
RM-100-400	1	4	1	6 1/2	6
RM-114-200	1 1/4	2	1 1/4	4 1/2	6

D-M-E High-Speed Roughing Mills are efficient all-purpose cutting tools. Economically priced, these workhorse products are ideal for mold shops that machine different steel types. Stocked in a variety of mill diameters, D-M-E High-Speed Roughing Mills are available in lengths ranging from 3-1/4 to 6-1/2 inches.

Tapered Milling Cutters



1/2° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
AX-203	1/8	3/4	3/8	2 1/2
AX-305	3/16	1 1/4	3/8	3 3/8
AX-805	1/2	1 1/4	1/2	3 3/8
AX-609	3/8	2 1/4	1/2	4 1/4
AX-813	1/2	3 1/4	1/2	5 1/2

1° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
A-201	1/8	3/8	3/8	2 1/2
A-203	1/8	3/4	3/8	2 1/2
A-403	1/4	3/4	3/8	2 1/2
A-305	3/16	1 1/4	3/8	3 3/8
A-405	1/4	1 1/4	3/8	3 3/8
A-805	1/2	1 1/4	1/2	3 3/8
A-409	1/4	2 1/4	1/2	4 1/4
A-609	3/8	2 1/4	1/2	4 1/4
A-809	1/2	2 1/4	1/2	4 1/4
A-413	1/4	3 1/4	1/2	5 1/2
A-813	1/2	3 1/4	1/2	5 1/2

2° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
B-203	1/8	3/4	3/8	2 1/2
B-403	1/4	3/4	3/8	2 1/2
B-305	3/16	1 1/4	3/8	3 3/8
B-405	1/4	1 1/4	3/8	3 3/8
B-805	1/2	1 1/4	1/2	3 3/8
B-409	1/4	2 1/4	1/2	4 1/4
B-609	3/8	2 1/4	1/2	4 1/4
B-809	1/2	2 1/4	1/2	4 1/4
B-413	1/4	3 1/4	1/2	5 1/2
B-813	1/2	3 1/4	5/8	5 1/2

OTHER SIZES AND TAPERS AVAILABLE. CONTACT D-M-E.

3° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
C-106	3/32	1 1/2	3/8	3 1/4
C-203	1/8	3/4	3/8	2 1/2
C-305	3/16	1 1/4	3/8	3 3/8
C-409	1/4	2 1/4	1/2	4 1/4
C-809	1/2	2 1/4	5/8	4 1/4
C-613	3/8	3 1/4	3/4	5 1/2

5° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
E-106	3/32	1 1/2	3/8	3 1/4
E-203	1/8	3/4	3/8	2 1/2
E-305	3/16	1 1/4	1/2	3 3/8
E-409	1/4	2 1/4	5/8	4 1/4
E-609	3/8	2 1/4	3/4	4 1/4
E-613	3/8	3 1/4	3/4	5 1/2

7° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
G-106	3/32	1 1/2	1/2	3 1/4
G-203	1/8	3/4	3/8	2 1/2
G-206	1/8	1 1/2	1/2	3 1/4
G-305	3/16	1 1/4	1/2	3 3/8
G-409	1/4	2 1/4	3/4	4 1/4
G-609	3/8	2 1/4	3/4	4 1/4

10° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
J-203	1/8	3/4	3/8	2 1/2
J-405	1/4	1 1/4	1/2	3 3/8
J-805	1/2	1 1/4	3/4	3 3/8

15° TAPER PER SIDE

ITEM NUMBER	O SMALL DIA.	F FLUTE LENGTH	S SHANK DIA.	L OVERALL LENGTH
P-202	1/8	1/2	3/8	2 1/2
P-304	3/16	1	1/2	3
P-406	1/4	1 1/2	3/4	3 3/8
P-805	1/2	1 1/4	3/4	3 1/2

Two Flute End Mills



- New flute shape allows increased feed and FASTER CUTS
- Polished flutes CLEAR CHIPS BETTER
- New flute shape reduces wear and PROLONGS LIFE
- Redesigned clearance gives GREATER ACCURACY

D-M-E End Mills are carefully designed and engineered to give you more cuts per grind, consistent accuracy, faster production and greater economy.

They are stronger because all sharp corners and points where localized stresses might occur have been eliminated. They clear chips better because the redesigned flutes have no "pockets" and allow the chips freedom of movement. New types of clearance and accurate machining of flutes result in closer size control and prevents "flaking" or "chipping out" of cutting edges.



TWO FLUTE SINGLE END MILLS

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM685-18	1/8	3/8	3/8	2 5/16
EM685-14	1/4	3/8	1/2	2 5/16
EM685-516	5/16	3/8	9/16	2 5/16
EM685-38	3/8	3/8	9/16	2 5/16
EM685-716	7/16	3/8	1 3/16	2 1/2
EM685-12A	1 1/2 A	3/8	1 3/16	2 1/2
EM685-12B	1 1/2 B	1/2	1	3
EM685-34A	3/4 A	1/2	1 5/16	3 5/16
EM685-34B	3/4 B	5/8	1 5/16	3 7/16
EM685-1	1	5/8	1 1/2	3 5/8



TWO FLUTE DOUBLE END MILLS

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM684-18	1/8	3/8	3/8	3 1/16
EM684-316	3/16	3/8	7/16	3 3/8
EM684-14	1/4	3/8	1/2	3 3/8
EM684-516	5/16	3/8	9/16	3 3/8
EM684-38	3/8	3/8	9/16	3 3/8
EM684-12	1/2	1/2	1 3/16	3 3/4
EM684-58	5/8	5/8	1 1/8	4 1/2



TWO FLUTE DOUBLE END MILLS (Extra Small)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM350-132	1/32	3/16	3/32	2
EM350-116	1/16	3/16	1/8	2



TWO FLUTE BALL NOSE END MILLS (Single End)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM690-14	1/4	3/8	5/8	2 7/16
EM690-516	5/16	3/8	3/4	2 1/2



TWO FLUTE BALL NOSE END MILLS (Double End)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM356-132	1/32	3/16	3/32	2 1/4
EM356-116	1/16	3/16	3/16	2 1/4
EM356-332	3/32	3/16	5/16	2 1/4
EM356-18	1/8	3/16	3/8	2 1/4
EM356-532	5/32	3/16	7/16	2 1/4
EM356-316	3/16	3/16	1/2	2 1/4

Four Flute End Mills



D-M-E Standard Four Flute End Mills provide the plunge cutting ability of a two or three flute end mill plus the finer finishes possible with a four flute end mill. They're effective with a range of materials, including steel, iron and brass.



FOUR FLUTE – DOUBLE END MILLS (Center Cutting)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM582-18	1/8	3/8	3/8	2 1/16
EM582-316	3/16	3/8	1/2	3 1/4
EM582-14	1/4	3/8	5/8	3 3/8
EM582-516	5/16	3/8	3/4	3 1/2
EM582-38	3/8	3/8	3/4	3 1/2
EM582-12	1/2	1/2	1	4 1/8
EM582-58	5/8	5/8	1 3/8	5
EM582-34	3/4	3/4	1 5/8	5 5/8
EM582-1	1	1	1 7/8	6 3/8



FOUR FLUTE – SINGLE END MILLS (Center Cutting)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM588-14	1/4	3/8	1 1/4	3 1/16
EM588-516	5/16	3/8	1 3/8	3 3/8
EM588-38	3/8	3/8	1 1/2	3 1/4
EM588-12	1/2	1/2	2	4
EM588-58	5/8	5/8	2 1/2	4 5/8
EM588-34	3/4	3/4	3	5 1/4
EM588-1	1	1	4	6 1/2



FOUR FLUTE – BALL NOSE END MILLS (Single End – Center Cutting)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM584-38	3/8	3/8	3/4	2 1/2
EM584-12	1/2	1/2	1 1/4	3 1/4



FOUR FLUTE – DOUBLE END MILLS (Small Diameters)

ITEM NUMBER	MILL DIAMETER	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
EM354-332	3/32	3/16	5/16	2 1/4
EM354-18	1/8	3/16	3/8	2 1/4
EM354-532	5/32	3/16	7/16	2 1/4
EM354-316	3/16	3/16	1/2	2 1/4

Counterbores



- Built-in chamfering operation
- Stub length for rigidity
- Three flute spiral design
- High speed steel

Here is a special purpose tool that not only performs its job well, but gives you added tooling performance besides. The built-in chamfer design automatically allows clearance for the radius under the Ejector Pin Head and insures proper seating of the pin.

D-M-E Counterbores are hardened and precision ground from top quality high speed steel to give you cleaner cutting and longer life. The three-flute spiral design has been engineered to reduce tool wear and give faster cutting action through rapid chip clearance.

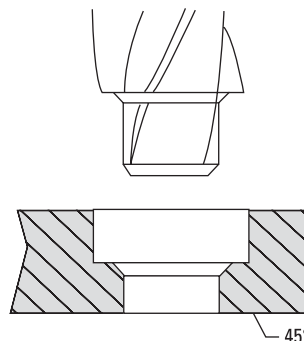
D-M-E Counterbores can help make counterboring easier and reduce your tooling costs... and here's how:

1. Drill the retainer plate to suit your D-M-E Ejector Pin diameter
2. Select the D-M-E Counterbore with the same Item Number as the D-M-E Ejector Pin to be used (*) and counterbore to the proper depth... *And that's it!*

(*) Example: For an EX-17 Ejector Pin or C-17 Core Pin, use a CB-17 Counterbore.

COUNTERBORES FOR EJECTOR PINS

ITEM NUMBER	EJ. PIN SIZE "G"	C-BORE BODY DIA.	PILOT LENGTH*	SHANK DIAMETER	OVERALL LENGTH
CB-9	1/8(t)	17/64	3/16	1/4	2 5/8
CB-10	9/64	17/64	3/16	1/4	2 5/8
CB-11	5/32	19/64	3/16	1/4	2 3/4
CB-12	11/64	23/64	3/16	1/4	3 1/16
CB-13	3/16	25/64	3/16	3/8	3 1/4
CB-14	13/64	25/64	3/16	3/8	3 1/4
CB-15	7/32	27/64	1/4	3/8	3 3/8
CB-16	15/64	27/64	1/4	3/8	3 3/8
CB-17	1/4	29/64	1/4	7/16	3 9/16
CB-18	17/64	29/64	1/4	7/16	3 9/16
CB-19	9/32	29/64	1/4	7/16	3 9/16
CB-20	19/64	33/64	5/16	1/2	3 3/8
CB-21	5/16	33/64	5/16	1/2	3 3/8
CB-22	21/64	37/64	5/16	1/2	4 1/8
CB-23	11/32	37/64	5/16	1/2	4 1/8
CB-24	23/64	41/64	5/16	5/8	4 1/2
CB-25	3/8	41/64	5/16	5/8	4 1/2
CB-27	13/32	45/64	5/16	5/8	4 3/4
CB-29	7/16	49/64	5/16	5/8	4 3/4
CB-31	15/32	49/64	5/16	5/8	5 1/8
CB-33	1/2	49/64	5/16	5/8	5 1/8
CB-35	9/16	53/64	5/16	5/8	5 3/8
CB-37	5/8	57/64	5/16	5/8	5 5/8
CB-39	11/16	61/64	5/16	5/8	5 7/8
CB-41	3/4	1 1/64	5/16	5/8	6 1/4
CB-45	7/8	1 9/64	5/16	3/4	6 1/4
CB-47	1"	1 17/64	5/16	3/4	6 1/4



COUNTERBORES FOR JIFFY-TITE CONNECTORS

ITEM NUMBER	FOR USE WITH	C-BORE BODY DIA.	PILOT DIA.	SHANK DIA.	OVERALL LENGTH
CB-80	JP-251	1 1/16	.337	1/2	4 1/8
CB-81	JP-252(SV)	27/32	.435	5/8	4 3/4
CB-82	JP-253(SV) JP-353(SV)	1.000	.575	5/8	5 5/8
CB-83	JP-354(SV)	1 3/16	.715	3/4	6 1/4

(t) For EX-3 through EX-9 Ejector Pins, use Counterbore CB-9.

*Pilot diameters are approximately .001 to .004 under EJ. Pin Size "G" diameter shown.

Machine Reamers



- Right Hand Spiral
- Right Hand Cut
- High Speed Steel
- Straight Shank

D-M-E Machine Reamers are made of top quality High Speed Steel and are especially effective for use in materials which are ordinarily difficult to ream. The right-hand spiral and right-hand cut design gives them a free cutting action resulting in smooth, accurate holes.

MACHINE REAMERS FOR EJECTOR PIN HOLES

ITEM NUMBER*	NOMINAL DIAMETER	DIAMETER Decimal Size	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
R-5	1/16	.0625	.0585	1/2	2 1/2
R-6	5/64	.078125	.0720	3/4	3
R-7	3/32	.09375	.0880	3/4	3
R-8	7/64	.109375	.1030	7/8	3 1/2
R-9	1/8	.125	.1190	7/8	3 1/2
R-9 OS	1/8	.130	.1190	7/8	3 1/2
R-10	9/64	.140625	.1350	1	4
R-11	5/32	.15625	.1510	1	4
R-11 OS	5/32	.16125	.1510	1	4
R-12	11/64	.171875	.1645	1 1/8	4 1/2
R-13	3/16	.1875	.1805	1 1/8	4 1/2
R-13 OS	3/16	.1925	.1805	1 1/8	4 1/2
R-14	13/64	.203125	.1945	1 1/4	5
R-15	7/32	.21875	.2075	1 1/4	5
R-15 OS	7/32	.22375	.2075	1 1/4	5
R-16	15/64	.234375	.2265	1 1/2	6
R-17	1/4	.250	.2465	1 1/2	6
R-17 OS	1/4	.255	.2465	1 1/2	6
R-18	17/64	.265625	.2485	1 1/2	6
R-19	9/32	.28125	.2485	1 1/2	6
R-19 OS	9/32	.28625	.2485	1 1/2	6
R-20	19/64	.296875	.2792	1 1/2	6
R-21	5/16	.3125	.2792	1 1/2	6
R-21 OS	5/16	.3175	.2792	1 1/2	6
R-22	21/64	.328125	.2792	1 1/2	6
R-23	11/32	.34375	.2792	1 1/2	6
R-23 OS	11/32	.34875	.2792	1 1/2	6
R-24	23/64	.359375	.3105	1 3/4	7
R-25	3/8	.375	.3105	1 3/4	7
R-25 OS	3/8	.380	.3105	1 3/4	7
R-27	13/32	.40625	.3105	1 3/4	7
R-27 OS	13/32	.41125	.3105	1 3/4	7
R-29	7/16	.4375	.3730	1 3/4	7
R-29 OS	7/16	.4425	.3730	1 3/4	7
R-31	15/32	.46875	.3730	1 3/4	7
R-31 OS	15/32	.47375	.3730	1 3/4	7
R-33	1/2	.500	.4355	2	8
R-33 OS	1/2	.505	.4355	2	8
R-35	9/16	.5625	.4355	2	8
R-37	5/8	.625	.5620	2 1/4	9
R-39	11/16	.6875	.5620	2 1/4	9
R-41	3/4	.750	.6245	2 1/2	9 1/2
R-45	7/8	.875	.7495	2 5/8	10
R-47	1"	1.000	.8745	2 3/4	10 1/2

Machine Reamer Item Number corresponds to Ejector Pin Item Number.

For example: For an EX-17 Ejector Pin, order an R-17 Machine Reamer.

(*) "OS" in the Item Number indicates the reamer is .005" oversize nearest fractional diameter.

The "OS" reamers are also available in carbide. See price list.

MACHINE REAMERS FOR CARTRIDGE HEATER HOLES

ITEM NUMBER	NOMINAL DIAMETER	DIAMETER Decimal Size	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH
LRS-4	3/8	.375	.3105	1 3/4	20
LRS-7	1/2	.500	.4355	2	20
LRS-15	5/8	.625	.5620	2 1/4	24
LRS-25	3/4	.750	.6245	2 1/2	24

Flexolap® Sets | Midget Laps

Flexolap® Sets

BARREL AND BLIND HOLE



Flexolap Set BL-6, or BH-6

DESCRIPTION	ITEM NUMBER
Barrel Lap Set	BL-6
Blind Hole Lap Set	BH-6

Includes six complete laps, one of each size $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$ and one additional Brass Lapping Cylinder of each size.

Flexolap Set BL-11, or BH-11

DESCRIPTION	ITEM NUMBER
Barrel Lap Set	BL-11
Blind Hole Lap Set	BH-11

Includes 11 laps, one of each size $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{9}{32}$, $\frac{5}{16}$, $\frac{11}{32}$, $\frac{3}{8}$, $\frac{13}{32}$, $\frac{7}{16}$, $\frac{15}{32}$, $\frac{1}{2}$.

Flexolap Set BL-13, or BH-13

DESCRIPTION	ITEM NUMBER
Barrel Lap Set	BL-13
Blind Hole Lap Set	BH-13

Includes 13 laps, one of each size $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{11}{16}$, $\frac{3}{4}$, $\frac{7}{8}$, $\frac{15}{16}$, $1"$.

Flexolap Set BL-18, or BH-18

DESCRIPTION	ITEM NUMBER
Barrel Lap Set	BL-18
Blind Hole Lap Set	BH-18

Includes 18 laps, one of each size $\frac{3}{16}$, $\frac{7}{32}$, $\frac{1}{4}$, $\frac{9}{32}$, $\frac{5}{16}$, $\frac{11}{32}$, $\frac{3}{8}$, $\frac{13}{32}$, $\frac{7}{16}$, $\frac{15}{32}$, $\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{11}{16}$, $\frac{3}{4}$, $\frac{7}{8}$, $\frac{15}{16}$, $1"$.



Midget Laps

FOR ACCURATELY LAPPING SMALL HOLES

D-M-E Midget Laps are ideal for accuracy in lapping small holes from .032" to approximately .250". This complete range is covered by seventeen different sizes and each lap expands to the next larger size. The Midget Lap has an elongated slit like the eye of a needle. With the Lap Expander any desired degree of expansion is quickly and easily obtained. This enables you to have complete flexibility without the danger of seizing.

NOTE: Lap Expander is included with all packages and sets.



DIA.	ITEM NUMBER	DIA.	ITEM NUMBER
.032	L-0	.104	L-8
.036	L-1	.120	L-9
.040	L-2	.135	L-10
.046	L-3	.155	L-11
.054	L-4	.170	L-12
.062	L-5	.187	ML-13
.070	L-6	.218	ML-15
.079	L-6A	.250	ML-17
.090	L-7		
L-0 thru ML-17 sold in packages of 10 only.		17 Piece Set (.032-.250)	MLS-1

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Discount applies to quantities of same size Midget Lap.

10 packs or more Less 20%

Flexolaps®

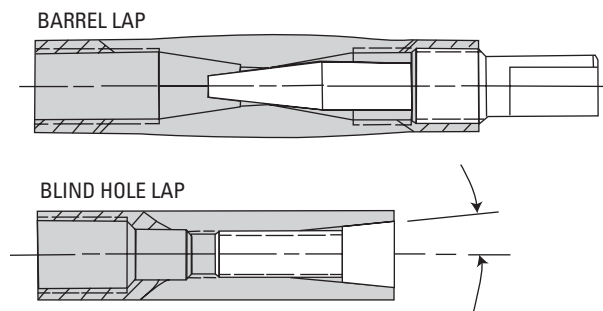


BARREL LAP

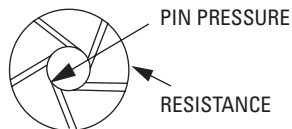


BLIND HOLE LAP

D-M-E Flexolaps are instantly and accurately adjustable for fast cutting and polishing. D-M-E branches carry all the sizes listed below in stock for immediate delivery in either the barrel or blind-hole style. The longer cylindrical lapping surface and easy adjustment insure greater precision and longer life. The Flexolap brass cylinder, in either the barrel or blind-hole type, is made with a series of longitudinal slots milled "off-center" to permit sensitive expansion up to 15% by simply turning the adjusting screw. This construction will enable you to lap rounder, straighter holes plus save valuable time.



BACK TAPER TO INSURE DIAMETRAL CONTACT AT FRONT END OF LAP



Flexolap's patented design provides off-center pressure with the slight "give" that eliminates galling and seizing under even the fastest cutting action.

LAPPING CYLINDERS*



BARREL



BLIND HOLE

*Package Quantities

LB-13 to 37 (BH) = 10

LB-39 to 47 (BH) = 5

LB-49 to 55 (BH) = 3

NOTE: Lapping Cylinders sold only in package quantities listed.

COMPLETE ASSEMBLIES

BARREL LAPS		BLIND HOLE LAPS	
DIA.	ITEM NUMBER	DIA.	ITEM NUMBER
3/16	L-13	3/16	L-13-BH
7/32	L-15	7/32	L-15-BH
1/4	L-17	1/4	L-17-BH
9/32	L-19	9/32	L-19-BH
5/16	L-21	5/16	L-21-BH
11/32	L-23	11/32	L-23-BH
3/8	L-25	3/8	L-25-BH
13/32	L-27	13/32	L-27-BH
7/16	L-29	7/16	L-29-BH
15/32	L-31	15/32	L-31-BH
1/2	L-33	1/2	L-33-BH
9/16	L-35	9/16	L-35-BH
5/8	L-37	5/8	L-37-BH
11/16	L-39	11/16	L-39-BH
3/4	L-41	3/4	L-41-BH
7/8	L-45	7/8	L-45-BH
15/16	L-46	15/16	L-46-BH
1	L-47	1	L-47-BH
1 1/8	L-49	1 1/8	L-49-BH
1 1/4	L-51	1 1/4	L-51-BH
1 1/2	L-55		

REPLACEMENT PARTS

SIZE (DIA.)	FOR USE WITH LAP	LAPPING CYLINDERS		ADJUSTING SCREWS		SHANKS
		BARREL	BLIND HOLE	BARREL	BLIND HOLE	
3/16	L-13 (BH)	LB-13	LB-13-BH	LAS316B	LAS316BH	2027E
7/32	L-15 (BH)	LB-15	LB-15-BH	LAS732B	LAS732BH	2028E
1/4	L-17 (BH)	LB-17	LB-17-BH	LAS14B	LAS14BH	2029E
9/32	L-19 (BH)	LB-19	LB-19-BH	LAS932B	LAS932BH	2030E
5/16	L-21 (BH)	LB-21	LB-21-BH	LAS516B	LAS516BH	2031E
11/32	L-23 (BH)	LB-23	LB-23-BH	LAS1132B	LAS1132BH	2032E
3/8	L-25 (BH)	LB-25	LB-25-BH	LAS38B	LAS38BH	2033E
13/32	L-27 (BH)	LB-27	LB-27-BH	LAS1332B	LAS1332BH	2034E
7/16	L-29 (BH)	LB-29	LB-29-BH	LAS1532B	LAS716BH	2035E
15/32	L-31 (BH)	LB-31	LB-31-BH	LAS1532B	LAS1532BH	2036E
1/2	L-33 (BH)	LB-33	LB-33-BH	LAS12B	LAS12BH	2037E
9/16	L-35 (BH)	LB-35	LB-35-BH	LAS916B	LAS916BH	
5/8	L-37 (BH)	LB-37	LB-37-BH		LAS58BH	
11/16	L-39 (BH)	LB-39	LB-39-BH		LAS1116BH	
3/4	L-41 (BH)	LB-41	LB-41-BH		LAS34BH	
7/8	L-45 (BH)	LB-45	LB-45-BH		LAS78BH	
15/16	L-46 (BH)	LB-46	LB-46-BH		LAS1516BH	
1	L-47 (BH)	LB-47	LB-47-BH		LAS1BH	
1 1/8	L-49 (BH)	LB-49	LB-49-BH			
1 1/4	L-51 (BH)	LB-51	LB-51-BH			
1 1/2	L-55	LB-55	—	LAS112B	—	2047E

Straight Shank Long Drills | Sprue Bushing Reamers

Straight Shank Long Drills

FOR STEAM LINES, WATER LINES, BRASS PLUG BAFFLE AND CARTRIDGE HEATER HOLES.

Now with parabolic flute geometry for improved performance!!



ITEM NUMBER	DIAMETER	FLUTE LENGTH	LENGTH OVERALL
LDS-2	5/16	16"	20"
LDS-4	23/64	16"	20"
LDS-5	7/16	16"	20"
LDS-7	31/64	16"	20"
LDS-10	9/16	20"	24"
LDS-15	39/64	20"	24"
LDS-20	11/16	20"	24"
LDS-25	47/64	20"	24"
LDS-30	15/16	20"	24"

For those molds that require deeper holes for hot runner and mold components, D-M-E Straight Shank Long Drills are available in overall lengths of 20 and 24 inches, with respective flute lengths of 16 and 24 inches. The product’s parabolic flute geometry produces lower chip-evacuation forces than standard flute geometry and a 30 percent increase in depth.

Sprue Bushing Reamers

HIGH SPEED STEEL, RIGHT HAND CUT, LEFT HAND SPIRAL



MACHINE REAMER FOR ROUGHING



HAND REAMER FOR FINISHING

MACHINE REAMERS		TAPER PER FT.*	DIA. SMALL END	DIA. LARGE END	SHANK DIA.	FLUTE LENGTH	HAND REAMERS	
ITEM NUMBER	NO. FLUTES						ITEM NUMBER	NO. FLUTES
SR-50-125	3	1/2	7/64	3/8	5/16	6"	SR-50-125-H	4
SR-50	3	1/2	13/64	5/8	1/2	10 1/2"	SR-50-H	6
SR-75-125	3	3/4	7/64	31/64	3/8	6"	SR-75-125-H	4
SR-75	3	3/4	13/64	7/8	5/8	10 3/4"	SR-75-H	6

*1/2 TAPER PER FOOT = 2°23'13" included angle.
3/4 TAPER PER FOOT = 3°34'47" included angle.

For optimum results, first step drill hole slightly under reamer size. Then use machine reamer followed by hand reamer.

Rout-A-Burr



"No shop should be without these sturdy, time saving hand tools!"

D-M-E Rout-A Burrs are versatile deburring and deflashing tools for mold and die makers, machinists, sheet metal workers, plastics molders and die casters. The sturdy acetal handle with interchangeable blade holders and blades can be used to break sharp edges, deburr, deflash, scrape and scribe. "Telescoping" action allows the blade holder to extend 1½ to 5" from the handle and be securely locked at various lengths by a ball and ring detent.

A selection of high speed steel (HSS) and carbide blades are available for use on metals and plastics...edges, internal and external holes.

ROUT-A-BURR ASSEMBLY

ITEM NUMBER

RBHA-3

Includes handle with removable end cap, blade holder (RB-B) and three blades (one each of RB-B10, B-20 and B-30)

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.
Rout-A-Burr Assemblies only.

3 or more Less 10%

BLADE HOLDER		BLADES		ITEM NUMBER BOX OF 10
ITEM NO.		DESCRIPTION		
RB-B	<p>Blades with * may be installed two ways as shown below.</p>		* HSS basic blade for steel and aluminum. Ideal for straight edges or holes.	RB-B10
			* HSS for cast iron and brass. Rotates clockwise and counterclockwise.	RB-B20
			* HSS for sheet metal and tubing. Deburrs inside and outside simultaneously.	RB-B30
			Carbide tipped scribe. Can be resharpened many times.	RB-B50
			* HSS for reaching thru a hole to deburr the opposite side. Can reach 1" deep.	RB-B60
			Carbide tipped "V" blade for sheet metal up to ⅛" thick. Also ideal for breaking sharp edges after milling or grinding operations.	RB-B70

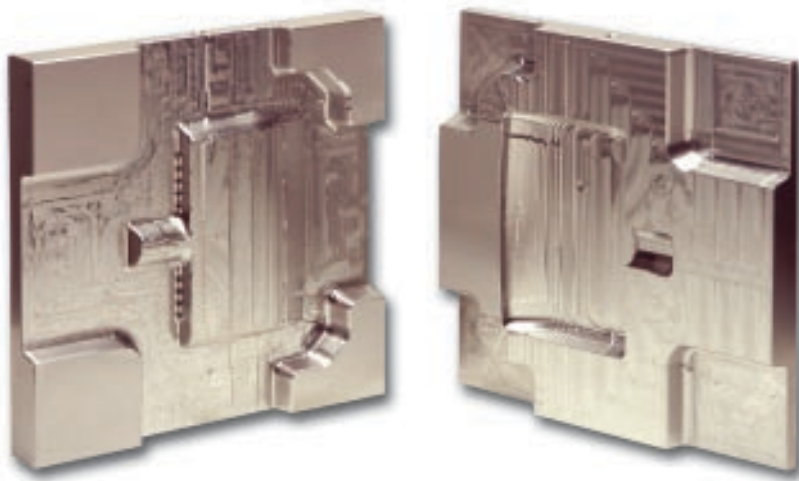
HEAVY DUTY BLADE HOLDER		HEAVY DUTY BLADES		ITEM NUMBER BOX OF 10
ITEM NO.		DESCRIPTION		
RB-E			HSS heavy-duty; longer version of RB-B10.	RB-E100
			HSS heavy-duty; longer version of RB-B20.	RB-E200
			HSS heavy-duty; longer version of RB-B30.	RB-E300
			HSS heavy-duty for straight edges, keyways, etc.	RB-E350
			HSS heavy-duty; longer version of RB-B60.	RB-E600

Contour Roughing Services

Key Advantages of Contour Roughing

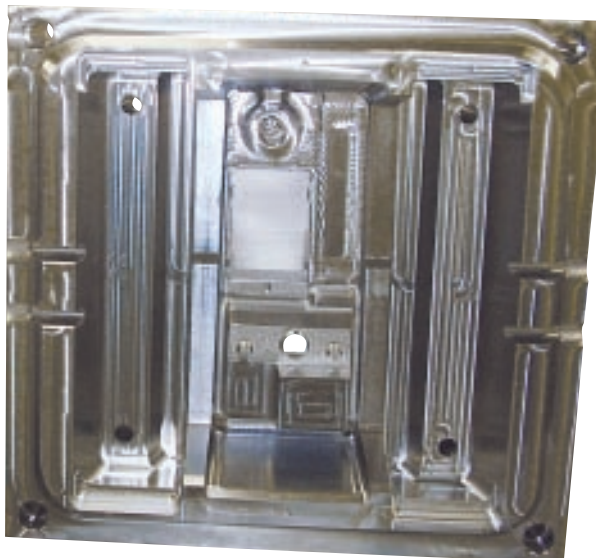
- Moldmakers can use this service to extend their in-house capacity, reduce lead time and focus on other high-value machining
- Consistent machining allowance throughout the surface of the cavity block provides even finishing without areas of heavy stock
- D-M-E can provide customers with the CAM program to continue the work where D-M-E left off, saving time and programming expense
- Contour roughing can be bundled with the option to stress-relieve cavity blocks and a custom mold base

At the request of moldmakers, D-M-E has begun to offer contour roughing services. D-M-E can rough mill complex part shapes into mold plates, even for milling that requires large and deep cavities.



- The Contour Roughing Service begins with complex core and cavity CAD files from customers
- D-M-E programs 3D cavity roughing tool paths that generate a rough milled surface, allowing machining stock for finishing by the customer
- D-M-E uses industry-leading CAM software for programming contour roughing tool paths leaving consistent machining allowance throughout the surface of the cavity block

For more details on the Contour Roughing Service, contact your D-M-E representative today.





D-M-E Finishing/Polishing Equipment

HUNDREDS OF EXACTING
FINISHING AND POLISHING
INSTRUMENTS AND SUPPLIES TO
ACHIEVE FLAWLESS FINISHES



Finishing/Polishing Equipment



Ultraform®

The D-M-E Ultraform® Ultrasonic Finishing and Polishing Systems are designed to replace costly, time-consuming hand finishing operations. They excel at rapid deburring, filing, stoning, polishing and lapping on a variety of surfaces, including EDM, tungsten carbide, mold steels and more.

Using a continuously variable stroke of 4 to 40 microns (.00016 to .0016 inches) and ultrasonic vibrations of 20,000 cycles per second, these systems provide the ideal combination of pin-point control and heavy duty power. There is no need to adjust or "tune-in" the ultrasonic frequency for various replaceable tools. The Ultraform units automatically adjust the proper frequency for all size tools, including diamond files up to 6 inches long.

Two types of ultrasonic modules are available to fit your specific finishing needs. Select the UF-2600, a single function ultrasonic polisher, or the UF-5600, a dual system offering both Ultrasonic and Minitor functions which must be used independently.



Both the UF-2600 and UF-5600 systems include a universal hand piece that can be used with both large and small tooling. Each system is supplied with a variety of tools and all of the necessary accessories to handle your most intricate polishing jobs with ease.

IMPROVED FEATURES

D-M-E's Ultraform models UF-2600 and UF-5600 offer the following improvements over previous systems:

- Added power increases tool cutting strength by 50%
- Improved circuitry provides constant power, regardless of the amount of pressure applied to the handpiece
- New transformer improves reliability
- Cool, vibration-free handpiece can be used with small and large tooling
- Clamp tool mode reduces power by 50%, preventing broken stones and burnt wood laps
- Power packs feature new updated cabinet styling and control panel layout
- UF-5600 model has 30% more torque when using rotary handpieces
- Universal handpiece is included with each system

HANDPIECE UF-9700

Universal handpiece can be used with either system for large and small tooling. The UF-9700 has a tool holder thread of 6mm, rather than the 8mm thread offered on previous handpieces. The handpiece and a 6-to-4mm adapter are included with both systems. All 8mm tooling will be replaced with 6mm to accommodate the new handpiece.



ULTRAFORM UF-5600

Dual Operating Capabilities – Ultrasonic and Minitor functions.

Automatic Frequency Shift – Accommodates a broad range of tool sizes.

Tool Condition – The UF-5600 calculates resonant frequencies and enables the operator to make customized tools. Reset switch activates if tool is too long or short.

Reversing Switch – Reverses rotation of handpiece for exact polishing of edges, corners, radii, etc.

State-of-the-art Circuitry – Improves torque at any RPM setting.

LED-Indicator Lights – Monitor power conditions and indicate operational modes.

User-Friendly Key Pad – Puts all functions within easy reach of operator.

ULTRAFORM UF-2600

Single Function Ultrasonic Polisher – Permits rapid deburring, filing, stoning, polishing and lapping with minimal operator effort.

Self-tuning Frequency Adjustment – Simplifies operation.

LED-Indicator Lights – Monitor power conditions and indicate operational modes.

User-Friendly Key Pad – Puts all functions within easy reach of operator.

Portable – Lightweight case with built-in carrying handle makes the unit easy to carry.

Ultraform®



STANDARD TOOLS AND ACCESSORIES INCLUDED WITH UF-2600 AND UF-5600:

4 diamond files	5 clamp horns	1 allen key	1 toolbox
2 resin bonded diamond stones	1 adapter-6mm to 4mm thread	1 replacement fuse	2 protective sleeves for the handpiece
6 ceramic stones	1 ultrasonic handpiece	1 power cord	1 wooden case for the handpiece
2 wooden laps	3 wrenches: 8, 10 and 13mm	1 handpiece wrench	1 power cord
3 diamond stones		1 set of protective ear plugs	

ITEM NUMBER	DESCRIPTION
UF-2600	Power Module UF-2600 and all standard tools and accessories
UF-5600	Power Module UF-5600 and all standard tools and accessories
UF-9700	Handpiece for UF-2600 and UF-5600 (included)
UF-7503	Memory Foot Switch (optional)

NOTE: If ordering other than standard 120 voltage, please specify.

Ultrasonic Handpiece UF-9700 is included with UF-2600 and UF-5600 Ultraform Systems.

POWER MODULE SPECIFICATIONS		
Model	UF-2600 and UF-5600	
Frequency of vibration	20.0 – 30.0 KHz	
Amplitude (stroke)	4 to 40 microns (.00016 to .0016")	
Frequency adjustment	Automatic feedback system	
Power output ultrasonic	45 watts max.	
Minitor power output (UF-5600 only)	DC 0 – 30 volts	
Output adjustment (power and stroke)	Continuously variable	
Power requirement	Single phase 100 to 250 v 50/60 Hz	
	UF-2600	UF-5600
Power consumption	100 VA	200 VA
Fuse	1.5 amperes 115 v 1 amperes 220 v	2 amperes 115 v 1.5 amperes 220 v
Outside dimension	7.1 × 8.4 × 6.2 inches	6.5 × 11.2 × 8.4 in.
Net weight	5.3 lbs.	8.2 lbs.

HANDPIECE UF-9700 SPECIFICATIONS	
Transducer	B.L.T. electrostrictive
Cable length	2 feet (coiled)
Screw thread	6 and 4mm with adapter
Dimensions	Small dia. 0.6" Large dia. 1.12" Length 5.12"
Weight	4.55 ounces

ADDITIONAL TOOLING:

Additional tooling for the Ultraform Ultrasonic Finishing and Polishing System is available.

Refer to D-M-E's ULTRAFORM ULTRASONIC TOOLING ITEM for details.



MEMORY FOOT SWITCH UF-7503

With the Memory Foot Switch power can be increased, decreased or memorized with a simple touch of the foot. Foot control can be used with either system and is compatible with both Ultrasonic and Minitor functions. By ordering a second foot switch, you can provide hands-free stroke/power adjustment for two operators.

Ultraform Tooling

Tooling Accessories in this item are for use with Ultraform Models UF-2600, and UF-5600.

Usage of Tools

- All Ultraform tools are made to match the resonant frequency of Argofile UL-501B and Ultraform models 2100/3000/5000/2600/5600.
The manufacturer does not accept any liability for other manufacturers’ tools.
- For maximum power, ensure all tools are securely fastened to the ultrasonic handpiece. Any noise coming from the joint between the tool and handpiece indicates an insecure fitting and/or bent tools, which result in reduced cutting power.
- Abrasive Stones/Ceramic Stones –
Ultraform models 2100/3000/5000: When using SX, LX champ horns ensure power output does not exceed 3 on power indicator scale. Above this power level excessive heat will cause the bonding of the abrasive stone to break down.
Ultraform models 2600/5600: Operate only with clamp horn mode switch.
- Wooden Laps –
Ultraform models 2100/3000/5000: When using wooden laps with SX, LX clamp horns ensure power output does not exceed 3 on power indicator scale. Above this power level excessive heat build-up will cause the wood to burn.
To obtain maximum driving power, retighten cap-screw on clamp horn during use.
Ultraform models 2600/5600: Operate only with clamp horn mode switch.

Color Coding

- All Ultraform diamond tools are color coded to identify the mesh/grit/micron (/UM) according to the chart below.

Color	MESH/GRIT	MICRON/UM
RED	200	68
BLACK	320	40
BLUE	500	35
WHITE	600	28
GREEN	1000	15

QUANTITY DISCOUNTS:
Discounts apply to current Net Prices. Applies to tooling on pages 23 thru 28 only. Tools of different styles and sizes may be combined on one order for quantity discounts.

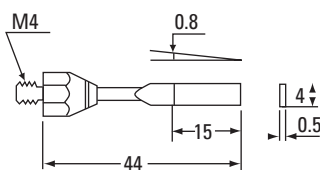
1 to 5	Less 10%
6 or more	Less 15%

Ultraform Diamond Files

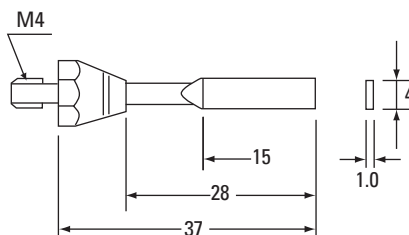
- Diamond particles are electro-deposited on steel shank
- Used for intermediate finishing
- Fast cutting

Precision graded particle size (68-28 micron).
Excellent for finishing slot sidewalls and flat or curved surfaces.

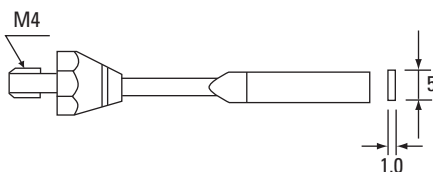
NOTE: All measurements in millimeters (mm).



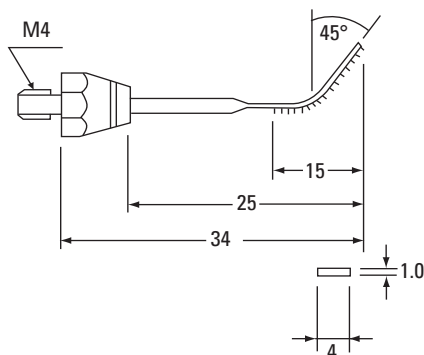
ITEM NUMBER	MESH/GRIT
USE-5845	200
USE-5745	320
USE-5545	600



ITEM NUMBER	MESH/GRIT
SE-4841	200
SE-4741	320
SE-4541	600



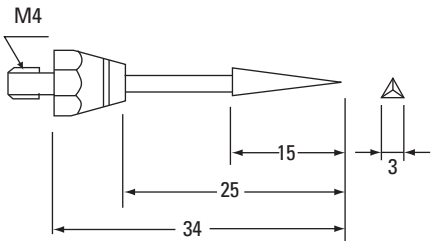
ITEM NUMBER	MESH/GRIT
SE-8851U	200
SE-8751U	320
SE-8551U	600



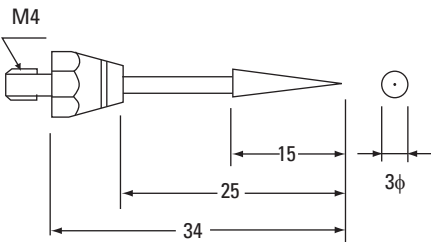
ITEM NUMBER	MESH/GRIT
SE-7841	200
SE-7741	320
SE-7541	600

Ultraform Diamond Files

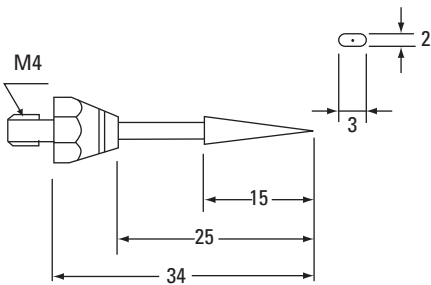
NOTE: All measurements in millimeters (mm).



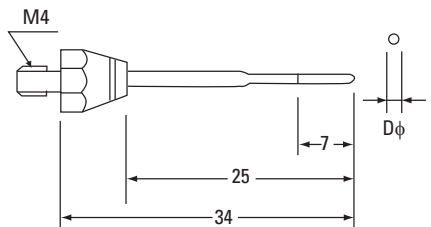
ITEM NUMBER	MESH/GRIT
SE-3803	200
SE-3703	320
SE-3503	600



ITEM NUMBER	MESH/GRIT
SE-6803	200
SE-6703	320
SE-6503	600



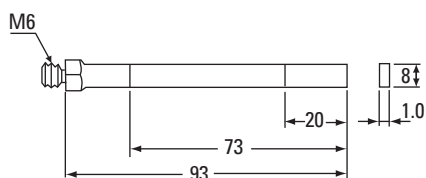
ITEM NUMBER	MESH/GRIT
SE-5832	200
SE-5732	320
SE-5532	600



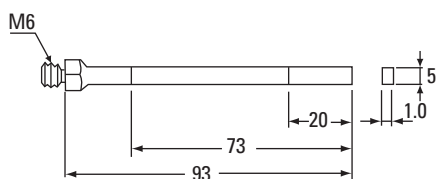
ITEM NUMBER	MESH/GRIT	D Ø
SE-9801	200	1mm
SE-9701	320	1mm
SE-9501	600	1mm
SE-9802	200	2mm
SE-9702	320	2mm
SE-9502	600	2mm

Ultraform Diamond Files | Resin Bonded Diamond Stones

NOTE: All measurements in millimeters (mm).

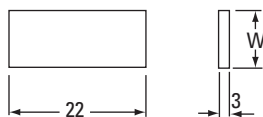


ITEM NUMBER	MESH/GRIT
UME-9881	200
UME-9781	320
UME-9581	600



ITEM NUMBER	MESH/GRIT
UME-9851	200
UME-9751	320
UME-9551	600

Resin Bonded Diamond Stones



- Can be used on the ED surface
- 6W stones with tool clamp UMX-4030
- 10 stones with tool clamp UMX-4130

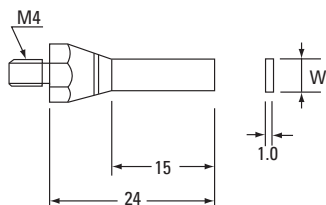
ITEM NUMBER	MESH/GRIT
UMD-4872	200
UMD-4772	320
UMD-4672	500
UMD-4372	1000
UMD-4812	200
UMD-4712	320
UMD-4612	500
UMD-4312	1000

Ultraform Diamond Stones

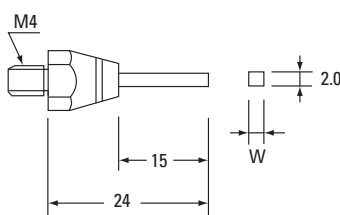
- Solid stone of diamond particles in a metal bond
- Used for intermediate and fine finishing
- Precision graded particle size (68 ~ 15 micron)
- Can be shaped with a diamond file to finish intricate surfaces

NOTE: All measurements in millimeters (mm).

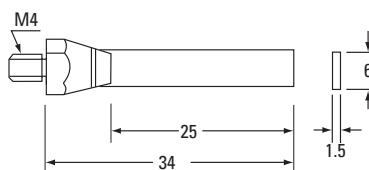
COLOR CODING: Red... #200, Black...#320, Blue...#500, Green...#1000



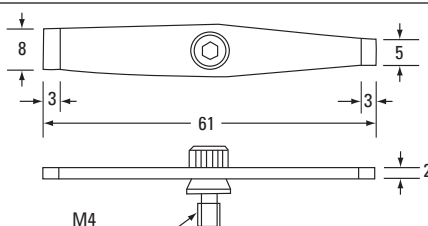
ITEM NUMBER	MESH/GRIT	W
SD-4831	200	3.0
SD-4731	320	3.0
SD-4631	500	3.0
SD-4331	1000	3.0
SD-4851	200	5.0
SD-4751	320	5.0
SD-4651	500	5.0
SD-4351	1000	5.0



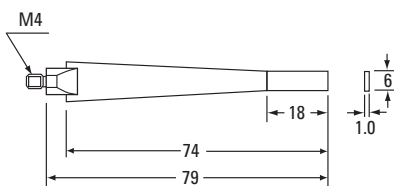
ITEM NUMBER	MESH/GRIT	W
SD-2802	200	2.0
SD-2702	320	2.0
SD-2602	500	2.0
SD-2302	1000	2.0
SD-4832	200	3.0
SD-4732	320	3.0
SD-4632	500	3.0
SD-4332	1000	3.0



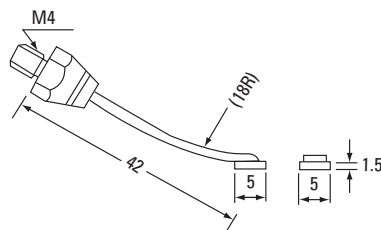
ITEM NUMBER	MESH/GRIT
SD-4862	200
SD-4762	320
SD-4662	500
SD-4362	1000



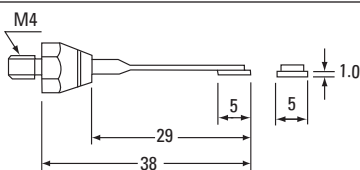
ITEM NUMBER	MESH/GRIT
USD-7885	200
USD-7785	320
USD-7685	500
USD-7385	1000



ITEM NUMBER	MESH/GRIT
USD-5861	200
USD-5761	320
USD-5661	500
USD-5361	1000



ITEM NUMBER	MESH/GRIT
SD-7855	200
SD-7755	320
SD-7655	500
SD-7355	1000

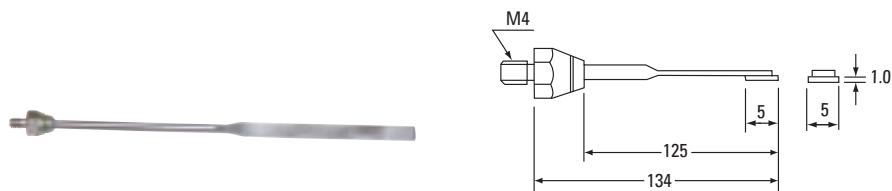


ITEM NUMBER	MESH/GRIT
SD-4861	200
SD-4761	320
SD-4661	500
SD-4361	1000

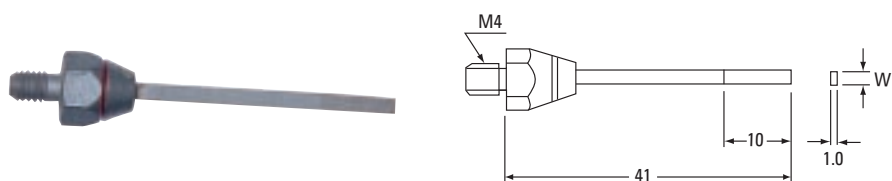
Ultraform Diamond Stones

NOTE: All measurements in millimeters (mm).

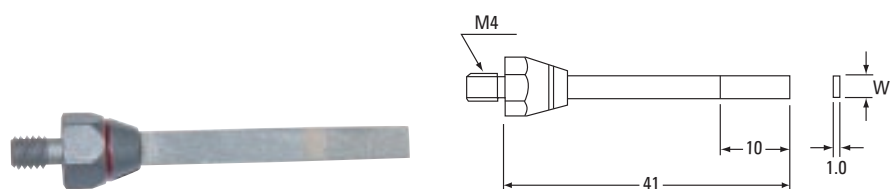
COLOR CODING: Red... #200, Black... #320, Blue... #500, Green... #1000



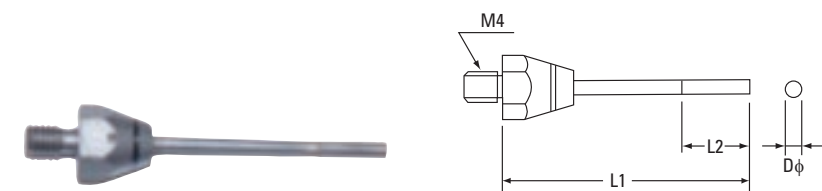
ITEM NUMBER	MESH/GRIT
SD-8851	200
SD-8751	320
SD-8651	500
SD-8351	1000



ITEM NUMBER	MESH/GRIT	W
SD-5821	200	2.0
SD-5721	320	2.0
SD-5621	500	2.0
SD-5321	1000	2.0
SD-5831	200	3.0
SD-5731	320	3.0
SD-5631	500	3.0
SD-5331	1000	3.0



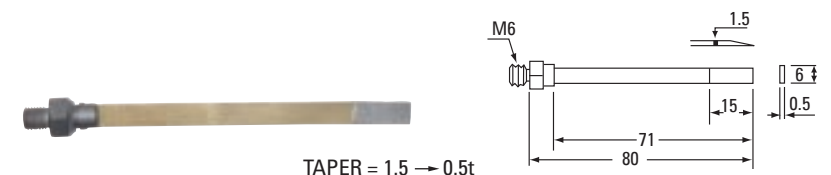
ITEM NUMBER	MESH/GRIT	W
SD-5841	200	4.0
SD-5741	320	4.0
SD-5641	500	4.0
SD-5341	1000	4.0
SD-5851	200	5.0
SD-5751	320	5.0
SD-5651	500	5.0
SD-5351	1000	5.0



ITEM NUMBER	MESH /GRIT	L1	L2	D
SD-1802	200	37	7.0	2.0
SD-1702	320	37	7.0	2.0
SD-1602	500	37	7.0	2.0
SD-1302	1000	37	7.0	2.0
SD-1803	200	39	10	3.0
SD-1703	320	39	10	3.0
SD-1603	500	39	10	3.0
SD-1303	1000	39	10	3.0



ITEM NUMBER	MESH/GRIT
UMD-8862	200
UMD-8762	320
UMD-8662	500
UMD-8362	1000



ITEM NUMBER	MESH/GRIT
UMD-9865	200
UMD-9765	320
UMD-9665	500
UMD-9365	1000

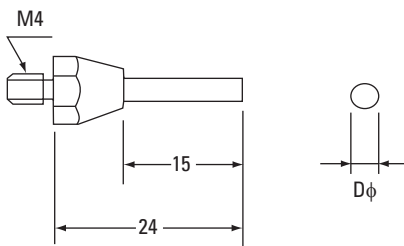


ITEM NUMBER	MESH/GRIT
UMD-1825	200
UMD-1725	320
UMD-1625	500
UMD-1325	1000

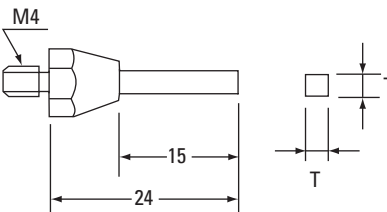
Ultraform Ruby Stones

- Precision graded particle size (17 micron)
 - Can be shaped with a diamond file or stone to finish intricate surfaces
- Designed for fine finishing
 - Fast cutting on soft surfaces
 - Ideal for fine detail work and squaring off rounded corners

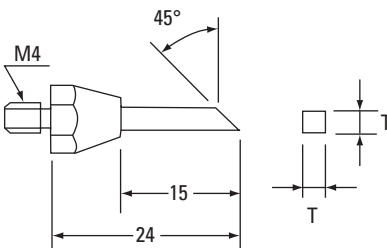
NOTE: All measurements in millimeters (mm).



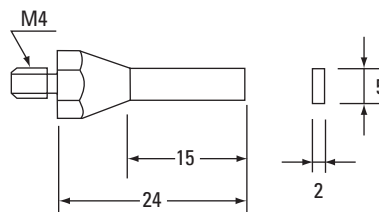
ITEM NUMBER	D
SR-1402	2.0
SR-1403	3.0



ITEM NUMBER	D
SR-2402	2.0
SR-2403	3.0



ITEM NUMBER	T
SR-7402	2.0
SR-7403	3.0



ITEM NUMBER	T
SR-4451	1.0
SR-4452	2.0

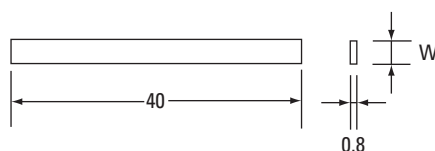
Ultraform Ceramic Stones

- Completely new line of abrasive stones made from a plastic matrix reinforced with high performance cutting ceramic fibers
- When used with ultrasonic vibration (ULTRAFORM) an exceptional polishing/cutting action is obtained
- Non-brittle stone ideal for polishing aluminum, stainless steel and tool steel
- Very durable with a long life and, when shaped, hold their profile without having to be reshaped

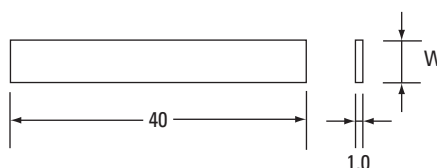
*Color Code/Mesh

COLOR	MESH/GRIT
BROWN	600
BLUE	800
WHITE	1000
RED	1200

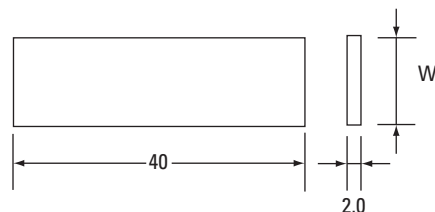
NOTE: All measurements in millimeters (mm).



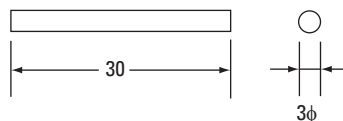
ITEM NUMBER	COLOR* CODE	W
USC-4548	BROWN	4
USC-4448	BLUE	4
USC-4348	WHITE	4
USC-4248	RED	4
USC-4568	BROWN	6
USC-4468	BLUE	6
USC-4368	WHITE	6
USC-4268	RED	6



ITEM NUMBER	COLOR* CODE	W
USC-4541	BROWN	4
USC-4441	BLUE	4
USC-4341	WHITE	4
USC-4241	RED	4
USC-4561	BROWN	6
USC-4461	BLUE	6
USC-4361	WHITE	6
USC-4261	RED	6



ITEM NUMBER	COLOR* CODE	W
ULC-4562	BROWN	6
ULC-4462	BLUE	6
ULC-4362	WHITE	6
ULC-4262	RED	6
ULC-4512	BROWN	12
ULC-4412	BLUE	12
ULC-4312	WHITE	12
ULC-4212	RED	12

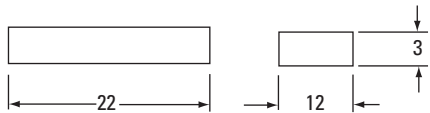


ITEM NUMBER	COLOR* CODE
USC-1530	BROWN
USC-1430	BLUE
USC-1330	WHITE
USC-1230	RED

Ultraform Abrasive Stones | Lapping Tools

- Non-loading, resin bonded
 - Precision graded particle size (150-600 grit)
 - Fast cutting
- For rough and intermediate finishing
 - Can be shaped with diamond file to suit surface contours

NOTE: All measurements in millimeters (mm).

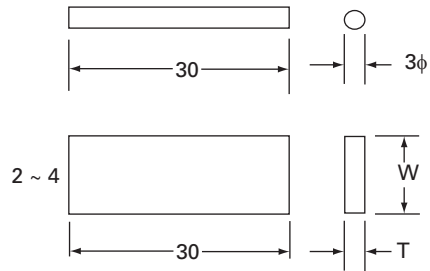


ITEM NUMBER	MESH/GRIT
LG-4813	150
LG-4713	220
LG-4613	280
LG-4513	320
LG-4413	400
LG-4313	600

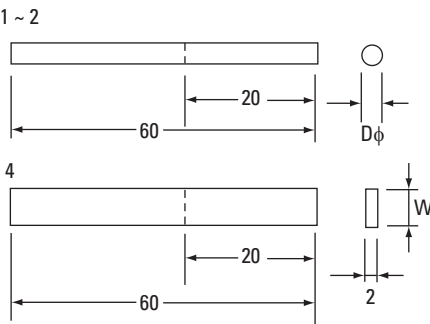
Lapping Tools

- For fine and ultra-fine polishing with diamond paste
- Can be shaped with a diamond file or stone to polish intricate surfaces

NOTE: All measurements in millimeters (mm).



	ITEM NUMBER	W	T
1	SO-1103	—	—
2	SO-4163	6	3.2
3	LO-4013	15	3.2
4	LO-2005	5	5
5	LO-4015	15	5

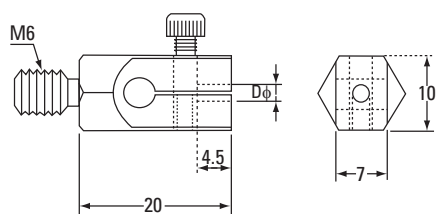


	ITEM NUMBER	D	W
1	SS-1102	2	—
2	SS-1103	3	—
4	LS-4082	—	8

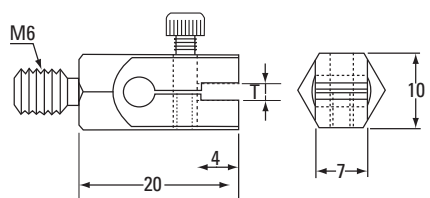
Can be cut and shortened at / marked.

Ultraform Tool Clamps (Clamp Horns)

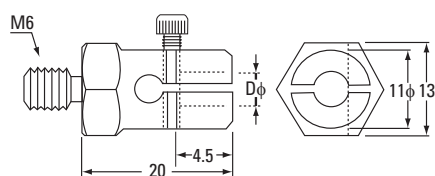
NOTE: All measurements in millimeters (mm).



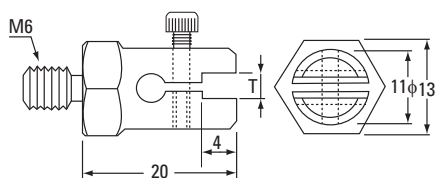
ITEM NUMBER	D
UMX-1020	2.0
UMX-1030	3.0
UMX-1033	3.3



ITEM NUMBER	T
UMX-4008	0.8
UMX-4010	1.0
UMX-4020	2.0
UMX-4030	3.0
UMX-4033	3.3



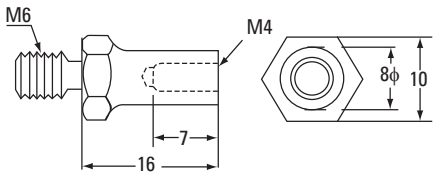
ITEM NUMBER	D
UMX-1140	4.0
UMX-1150	5.0
UMX-1160	6.0



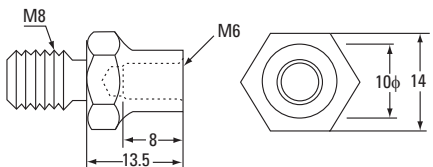
ITEM NUMBER	T
UMX-4110	1.0
UMX-4120	2.0
UMX-4130	3.0
UMX-4133	3.3
UMX-4140	4.0
UMX-4150	5.0

Ultraform Adapters

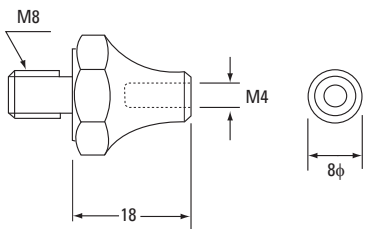
NOTE: All measurements in millimeters (mm).



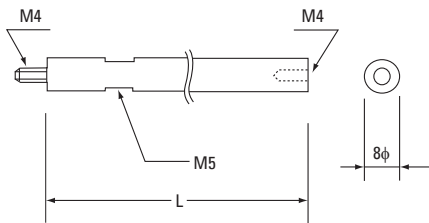
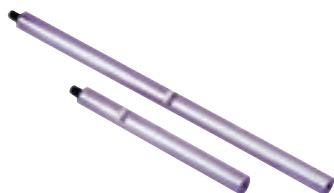
ITEM NUMBER
UMS-0064



ITEM NUMBER
UMS-0086



ITEM NUMBER
SL-1000



ITEM NUMBER	L
SL-1080	80
SL-1160	160

Ultraform Accessories

ULTRAFORM ACCESSORIES

HANDPIECE
UF-9700



SMALL HANDPIECE

1) UF-9000

LARGE HANDPIECE

2) UF-7000



FOOT SWITCH

1) UF-7504 (ON/OFF)

2) UF-7503 (VARIABLE CONTROL)



CLAMP HORN KEY

UF-7005 M4

UF-7003 M3

UF-7006 M2.5

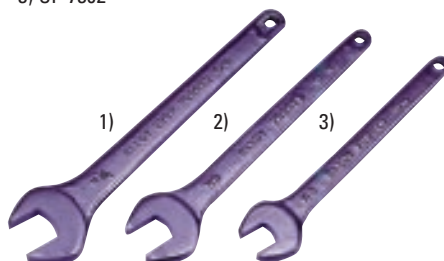


WRENCH

1) UF-7307

2) UF-7305

3) UF-7302



PROTECTION SLEEVE

1) UF-7024

2) UF-7026

3) UF-7025



WOODEN CASE FOR HANDPIECE

UF-7016 for UF-7000

UF-7017 for UF-9000, UF-9700



PLASTIC TOOL BOX

UF-7022



POWER CORD

UF-7100 100V Korea

UF-7101 115V U.S.A.

UF-7102 220V Europe

UF-7103 240V U.K.



Minitor D Series Power Pack | Accessories

Power Pack

- Dual Operating Capabilities – Two operators can use all functions simultaneously
- High Torque at low rpm
- Reversing Switch prevents rollover on edges by reversing tool rotation

The Minitor “D” Series variable speed Power Pack NMS 0001 powers all D-M-E Minitor Handpieces. The power pack offers dual controls for use by two operators at one time. The power unit may be controlled by hand or by variable foot controls. This “D” Series System offers the latest in polishing technology for the ultimate in flexibility and accuracy.

SPECIFICATIONS

NMS-0001

Rated Voltage..... 117VAC \pm 10%
 Frequency..... 50/60 Hz
 Output Voltage..... DC-30V (Continuous)
 Output Amperage..... 0.3 A (Variable)
 Output Socket..... 2 (Dual Control)

ITEM NUMBER

NMS-0001



NOTE: “D” Series Power Pack will accept previous Minitor Handpieces; Previous Power Pack will accept “D” Series Handpieces.

Accessories

MINITOR EXTENSION CORD (not shown) Flexible 6-foot coiled cord connects between any Minitor handpiece and Power Pack or Ultraform UF3000/5000I. ITEM NUMBER: UFPPEC-30



HANDPIECE CRADLE MODEL UFRM-01

This molded rubber stand provides a handy non-slip place to “park” any Minitor handpiece when not in use. The functional stand is an ideal way to keep your bench top neat, and your handpieces accessible.

ITEM NUMBER

UFRM-01



REPLACEMENT CURL CORD MODEL NMS-0015

This flexible coiled cord is designed to connect between any “D” Series Minitor handpiece and Power Pack or Ultraform Model UF5000.

ITEM NUMBER

NMS-0015



MINITOR FOOT CONTROL MODEL NMS-0020

The Minitor Foot Control provides solid-state, infinitely variable speed control for all Minitor handpieces. It is supplied with a 5-foot cord. For use with new “D” Series Power Pack only.

ITEM NUMBER

NMS-0020

Minitor D Series Belt Sander | Profiler R

Belt Sander

MODEL UFH-BS33

- Direct Motor Drive provides maximum power
- Spring Loaded Tensioning Device on belt arm enables quick change of sanding belts
- Lubrication not required

ABRASIVE BELTS

WIDTH	GRIT	ITEM NUMBER*
¼ (6mm)	80	ABB-08080
	120	ABB-08120
	180	ABB-08180
	240	ABB-08240
⅝ (8mm)	80	ABB-10080
	120	ABB-10120
	180	ABB-10180
	240	ABB-10240

*Pack of 10



ITEM
NUMBER

UFH-BS33

SPECIFICATIONS

UFH-BS33

Input Voltage 0-30 D.C.V.
 Rated Amperage 0.3 D.C.A.
 Belt Speed 3 to 12 m/sec.
 Weight 450g

Profiler "R"

MODELS NMS-0005 AND NMS-0006

- Pistol Grip provides comfort and easy handling
- Curl Cord enables freedom of movement for greater accuracy
- Variable speed control and stroke adjustment provides maximum flexibility
- Accepts tool shanks up to ⅝" max

SPECIFICATIONS

NMS-0005

Rated Input Voltage 0-30 D.C.V.
 Reciprocating Stroke 0-6mm
 Frequency 0-4,200 strokes/min
 Rotation Speed 15,000 rpm
 Pulley Reduction Rate 1:3.4
 Size 145 mm (L) × 40mm(W) × 130mm(H)
 Weight 675g

ITEM
NUMBER

NMS-0005

NMS-0006

Rated Input Voltage 0-30 D.C.V.
 Reciprocating Stroke 0-2mm
 Frequency 0-7,000 strokes/min
 Rotation Speed 15,000 rpm
 Pulley Reduction Rate 1:2
 Size 145mm(L) × 40mm(W) × 130mm(H)
 Weight 675g

ITEM
NUMBER

NMS-0006



Minitor D Series
Rotary Handpieces | Profiler S

Rotary Handpieces

MODELS NMS-0002, NMS-0003, and NMS-0004

The new slim line rotary handpieces are perfectly balanced for ease of handling in even the most difficult jobs. The NMS-0002 provides high torque for heavy duty applications, while the NMS-0004 with its speed of 55,000 RPM is ideal for carbide burs, CBN and diamond tools.

- Quick release 1/8" and 3/32" collets for rapid tool changing
- Curl cord plug-in for quick replacement (No screws or soldering required)
- Range of 15,000 to 55,000 rpm

SPECIFICATIONS

NMS-0002	NMS-0003	NMS-0004
Rated Input Voltage0-30 D.C.V.	Rated Input Voltage0-30 D.C.V.	Rated Input Voltage0-30 D.C.V.
Rotation Speed.....0-15,000 rpm	Rotation Speed.....0-30,000 rpm	Rotation Speed.....0-55,000 rpm
Max Shaft Output.....60 W	Max Shaft Output.....70 W	Max Shaft Output.....40 W
Max Shaft Torque.....0.076 N.m.	Max Shaft Torque.....0.059 N.m.	Max Shaft Torque.....0.027 N.m.
Size.....32 × 170 mm	Size.....32 × 170 mm	Size.....27 × 150 mm
Overall Weight.....270g	Overall Weight.....270g	Overall Weight.....190g
Motor Weight.....170g	Motor Weight.....170g	Motor Weight.....90g

Note: Due to improved design, "D" Series Motors and Heads are not interchangeable with previous models.

ITEM NUMBER
NMS-0002
NMS-0003
NMS-0004

*Standard Head NMS-0009 comes with all handpieces.



Profiler "S"

MODEL NMS-0007

- Compact and lightweight for precise operation
- Reduced vibration for greater accuracy
- Variable stroke and speed control

ITEM NUMBER
NMS-0007

(Users NMS-0016 Motor)

SPECIFICATIONS
NMS-0007

Rated Input Voltage0-30 D.C.V.
Rotation Speed.....0-8,000 rpm
Chuck Capacity.....0.60-.156 (1.5 mm-4 mm)
Swing Stroke.....0-.062 (0-1.6 mm)
Stroke Frequency.....0-8,000 stroke/min
Size.....32 × 190
Weight.....290g
Motor Torque.....0.073 N.m.

Minitor D Series Motors | Accessory Heads

ITEM NUMBER	RPM
NMS-0012	15,000
NMS-0013	30,000
NMS-0016	8,000



NOTE: Due to improved design, "D" series motors and heads are not interchangeable with previous models.

Accessory Heads

STANDARD HEAD MODEL NMS-0009

- 1/8" Std. Collet
- 3/32" and 3mm optional



This all-purpose rotary head is the same one supplied with handpiece Models NMS-0002, 0003 and 0004. It features a quick-release collet mechanism for rapid tool changes and is supplied with a 1/8" collet.

ITEM NUMBER

NMS-0009

120° HEAD MODEL NMS-0011

- 1/8" Std. Collet
- 3/32" and 3mm optional



NOTE: For use with NMS 0012 motor only

This very useful head easily reaches those smaller and deeper areas that are unreachable with other types of heads. A quick-release collet is featured and a 1/8" collet is supplied with the head.

ITEM NUMBER

NMS-0011

90° HEAD MODEL NMS-0010

- 1/8" Std. Collet
- 3/32" and 3mm optional



NOTE: For use with NMS 0012 motor only.

This useful head provides access for many finishing and polishing jobs. The right angle configuration is ideal for use with abrasive and polishing disks, felt bobs and more. This versatile head features a quick-release collet mechanism for rapid tool changes, and is supplied with a 1/8" collet.

ITEM NUMBER

NMS-0010

HEAVY-DUTY HEAD MODEL NMS-0017



NOTE: Not for use with NMS-0014 motor.

This rotary head accepts larger 1/4" shank tools for increased stock removal. It features a quick-release collet mechanism for rapid tool changes, and is supplied with a 1/4" collet.

ITEM NUMBER

NMS-0017

SLENDER HEAD MODEL NMS-0018



This pencil-like rotary head is ideal for working deep cavities and restricted areas. The profile provides an extra 40mm reach over the standard rotary head. It features a quick-release collet mechanism for rapid tool change. Supplied with a 1/8" collet.

ITEM NUMBER

NMS-0018

Steel Files | Diamond Files

STEEL FILES

SWISS PATTERN


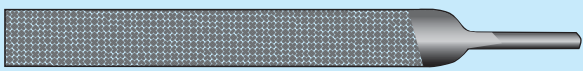

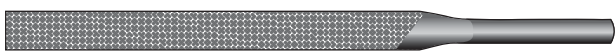










Precision-cut and made of high-quality steel. All are available in either "00" or "01" cut and have 1/8 shanks.

ITEM NUMBER	CUT
STL-00-SET	00
STL-01-SET	01

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Shapes and cuts may be mixed.

5 or more Less 10%

STEEL FILES (STL-101 – 4" LONG, ALL OTHERS 3½" LONG)		SHAPE	DESCRIPTION	ITEM NUMBER
		Flat	.400 wide x .110 thick	STL-101-*
		Flat	.200 wide x .060 thick	STL-1-*
		Round	.045 to .125 dia.	STL-2-*
		Half Round	.125 to .180 wide .045 to .100 thick	STL-3-*
		Crossing	.100 to .180 wide .045 to .075 thick	STL-4-*
		Triangular	.070 to .125 per side	STL-5-*
		Square	.045 to .100 per side	STL-6-*

*When ordering files above, add "00" or "01" to end of item number to indicate cut desired (e.g. STL-1-00).


















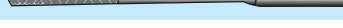






DIAMOND FILES

D-M-E diamond files are particularly adapted for cavity finishing. Diamond particles are accurately graded and then metal bonded with points exposed. All D-M-E diamond files are supplied with 1/8 shanks. Heavy black lines on end cross sections indicate cutting edges.

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Shapes and cuts may be mixed.

5 or more Less 10%

STANDARD DIAMOND FILES (2" LONG)		SHAPE	DESCRIPTION**	ITEM NUMBER
		Flat	.0787 wide x .046 thick	DLA 2 x 1
			.1181 wide x .046 thick	DLA 3 x 1
			.1575 wide x .046 thick	DLA 4 x 1
			.1575 wide x .0787 thick	DLA 4 x 2
			.1969 wide x .0787 thick	DLA 5 x 2
		Round	.046 diameter	DLA 1
			.0787 diameter	DLA 2
			.1181 diameter	DLA 3
		Triangular	.0787 x .0787 x .0787	DLA T2
			.1181 x .1181 x .1181	DLA T3
		Crossing	.1610 wide x .0722 thick	DLA R2.5 x R5
LONG DIAMOND FILE (3¼" LONG)			**100 MICRONS	
		Flat	.1969 wide x .0600 thick	DLE 1

Half Rifflers | Felt Bobs













Half Rifflers

FOR USE WITH MINITOR PROFILER 'R'

The half rifflers illustrated below are precision-cut swiss pattern ruffle files made of high-quality steel. D-M-E half rifflers are available in a variety of shapes. All are available in either "0" or "2" cut, have $\frac{1}{8}$ " shanks and are $3\frac{1}{2}$ " long.

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.
Half rifflers shapes and cuts may be mixed.
5 or more Less 10%

	ITEM NUMBER PREFIX*		ITEM NUMBER PREFIX*
	HR 556		HR 562
	HR 557		HR 563
	HR 558		HR 564
	HR 559		HR 565
	HR 560		HR 566
	HR 561		HR 567

*When ordering half rifflers above, add "0" or "2" to end of item number to indicate cut desired (e.g. HR-556-0).

Felt Bobs

FOR USE WITH MINITOR PROFILER 'R'

- 45° angle end cut
- $\frac{1}{8}$ " diameter x $1\frac{1}{4}$ " long shanks

SIZE	MEDIUM	HARD	ROCK HARD
	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER
$\frac{1}{4} \times \frac{1}{4} \times 1\frac{1}{2}$	LSB-1-M	LSB-1-H	LSB-1-DH
$\frac{3}{8} \times \frac{3}{8} \times 1\frac{1}{4}$	LSB-2-M	LSB-2-H	LSB-2-DH
$\frac{1}{2} \times \frac{1}{2} \times 1\frac{3}{4}$	LSB-3-M	LSB-3-H	LSB-3-DH



Abrasive Stone Holders

Abrasive Stone Holders

- Handheld and shank-mounted styles
- Provide excellent control and quick stone changes

The new line of abrasive stone holders provides the metal finisher with excellent control and convenience. They are precision molded of shock absorbing, impact resistant nylon 6-6, and feature a removable collar that locks the stones in place and permits quick stone changes. Shank mounted style is designed for use with the Minitor *Profiler 'R' as well as other reciprocating profilers.

Handheld style offers double end capacity.

* (1/8 shanks only)



HSH-400



SH-210



SH-220



SH-310



SH-320

ABRASIVE STONE HOLDERS

ITEM NUMBER	SHANK DIAMETER	ACCOMMODATE STONE SIZE
SH-210	(1/8) .125	1/8 x 1/4
SH-220	(1/8) .125	1/8 x 1/2 1/4 x 1/4
SH-310	(3/16) .185	1/8 x 1/4
SH-320	(3/16) .185	1/8 x 1/2 1/4 x 1/4
HSH-400 (Handheld Stone Holder)	None	1/16 x 1/2 1/8 x 1/2 1/4 x 1/4 1/8 x 1/4

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.
Stone holder styles may be mixed.

3 or more Less 10%

Abrasive Stones | Abrasive Stone Shoe Kit

The stones are sized for use with D-M-E Stone Holders. They are available in three types of stones: VITRIFIED for general purpose finishing, RESIN for finishing EDM surfaces and ALUMINUM OXIDE for polishing. D-M-E abrasive stones can be used on pre-hardened, hardened and soft mold and die steels.

LENGTH (ALL STONES = 4")		GENERAL PURPOSE				EDM			FINE FINISH	
		SILICON-CARBIDE VITRIFIED BONDED TYPE V				SILICON-CARBIDE RESIN BONDED TYPE R			ALUMINUM OXIDE TYPE X	
THICKNESS	WIDTH	GRIT				GRIT			GRIT	
		150	240	400	600	120	220	320	600	900
1/8	3/8	•	•	•	•	•	•	•	•	•
3/16	3/8	•	•	•	•	•	•	•	—	—
1/4	3/8	•	•	•	•	•	•	•	—	—
1/8	1/2	•	•	•	•	•	•	•	—	—
3/16	1/2	•	•	•	•	•	•	•	—	—
1/4	1/2	•	•	•	•	•	•	•	•	•
3/8	1/2	•	•	•	•	•	•	•	•	•



QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Types, sizes and grits may be mixed.

10 or more Less 15%

WHEN ORDERING, PLEASE SPECIFY:

1. Quantity
2. Thickness, width, length, grit and type
Example: (16) 3/16 x 1/2 x 4", 220R

For other shapes and sizes of abrasive stones, see page 50.

ABRASIVE STONE SHOE KIT

- Floating Stone Shoe design allows stones to be used at any angle
- Provides the metal finisher with optimum control and flexibility

These new Abrasive Stone Shoes and Stone Flats represent a new standard in metal finishing. Their unique "floating" design permits stoning of flat surfaces, sidewalls, ribs, various contours, etc., with speed and precision. The Stone Shoes are molded of shock absorbing, impact resistant nylon 6-6, and designed to accommodate square or triangular Abrasive Stone Flats. The 1/8" diameter hex drive stems are designed for use with the Minitor Profiler 'R', as well as other reciprocating profilers. Complete kit is supplied with 240 grit, type M oil filled stones.

ABRASIVE STONE SHOE KIT

ITEM NUMBER	DESCRIPTION
SSK-240M	Kit includes: 3/4" Triangular Stone Shoe; 1" Triangular Stone Shoe; 1" Square Stone Shoe; 3/4"/1" Stone Shoe; 4 Hex Drive Stems; 10 Abrasive Stone Flats in 240 grit; Type M (Medium oil filled); Sturdy Plastic Case.

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Pack sizes, types and grits may be mixed.

3 or more packs Less 10%



Abrasive Stone Shoes: (clockwise from right) 1" Square, 1" Triangular, 3/4" Triangular and 3/4"/1" Triangular Upright.

REPLACEMENT ABRASIVE STONE FLATS*

SIZE AND SHAPE	GRIT PACKAGE OF TEN					STONE TYPE
	150	240	320	400	600	
3/4" TRI	•	•	•	•	•	Choice of Type E (EDM stone) or Type M (medium oil filled)
1" TRI	•	•	•	•	•	
1" SQ.	•	•	•	•	•	

Super-Flex Electric Hand Grinder | Heavy-Duty Foot Speed Controller

Finishing/Polishing Equipment | Super-Flex Electric Hand Grinder; Heavy-Duty Foot Speed Controller

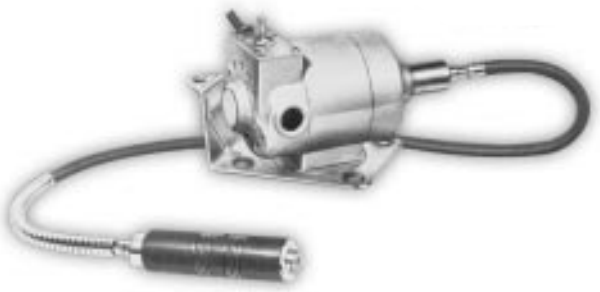
Super-Flex Electric Hand Grinder

The Super-Flex gives you a full ¼ hp 22,000 rpm hand-grinding tool for continuous, full-shift duty. With the Super-Flex you put the power in your hand and the power plant on the bench. Ideal for use with carbide cutters and mounted points. It has a cool-running aluminum handpiece with grease-sealed bearings. It weighs only 14 ounces but can accommodate ¼ and ⅝ shank diameters. Lock pin and wrenches allow quick tool change.

The 36" flexible shaft is moisture-, oil- and grease-resistant made of heavy-duty spun wire with bronze liner. Motor has swivel plate for bench or wall mounting. Item No. 2-248 Foot Speed Controller is available for variable speed control (see below).

ITEM NO. 6-411 – Super-Flex Hand Grinder consists of 115V, AC or DC motor with base, flexible shaft, handpiece, 2 collets (⅝ and ¼) and 2 wrenches.

ITEM NUMBER	SPECIFICATIONS
6-411	Type Motor Universal
	Rated hp ¼
	No-Load Speed..... 22,000 rpm
	Type Bearings..... Ball



RECOMMENDED FOR HEAVY-DUTY CAVITY WORK AND PRODUCTION BENCH WORK WHERE FINGERTIP CONTROL IS A MUST.

NOTE: Electric Hand Grinders 10-311 & 10-321 available by special order. Please call Customer Service for price and availability.

Heavy-Duty Foot Speed Controller

Heavy duty, solid state, infinitely variable speed control, with a low profile housing to protect against accidental actuation. Motor speed is increased as pedal is depressed, stops when pedal is released.

Supplied with a 6-foot No. 18/3 cord. Unit operates on 125 VAC, 6 amps, 60 Hertz.

Can be used with Super-Flex Hand Grinder (above).

ITEM NUMBER
2-248



Air Grinder and Filter Lubricator | Tungsten Carbide Rotary Cutters

Air Grinder and Filter Lubricator

The compact D-M-E Air Grinder has a rated capacity of $\frac{1}{4}$ " diameter mounted points with its $\frac{1}{8}$ " collet. An easily operated speed adjusting throttle in the handpiece precisely controls the ball bearing motor to provide spindle speeds up to 60,000 rpm. The overhose exhaust, an integral part of the air supply line, muffles excessive noise and redirects the exhaust air away from the operator and work area. For added operator comfort, the metal handpiece is insulated by a plastic sleeve.

AIR GRINDER KITS

(Motor = 0.1 hp)

ITEM NUMBER
AGK-61
AGK-61M*

Air Consumption = 0.7 cfm
*has 3mm collet

FILTER LUBRICATOR

IN/OUT PORTS ARE $\frac{1}{4}$ N.P.T.

ITEM NUMBER
FL-60



The D-M-E Air Grinder Kit, packaged in a sturdy tool box, includes handpiece with $\frac{1}{8}$ " collet and nose guard, 5-foot air supply line with 2-foot overhose exhaust, and two wrenches. A metric version of the D-M-E Air Grinder Kit is also available with a 3mm collet.

The recommended filter lubricator for air filtration and automatic lubrication is available separately.

Tungsten Carbide Rotary Cutters

$\frac{1}{8}$, $\frac{1}{4}$ AND $\frac{3}{8}$ DIAMETERS



ROTARY CUTTERS ALSO AVAILABLE IN 10-PIECE SETS (ONE OF EACH SHAPE IN HANDY CONTAINER AS SHOWN)



DESCRIPTION	$\frac{1}{8}$ SOLID CARBIDE	$\frac{1}{4}$ CARBIDE HEADS ON $\frac{1}{8}$ STEEL SHANKS	$\frac{3}{8}$ CARBIDE HEADS ON $\frac{1}{4}$ STEEL SHANKS
	ITEM NUMBER	ITEM NUMBER	ITEM NUMBER
CYLINDRICAL	CYL-1	CYL-2	CYL-3
CONE	CON-1	CON-2	CON-3
OVAL	OVL-1	OVL-2	OVL-3
INVERTED CONE	INC-1	INC-2	INC-3
BALL	BAL-1	BAL-2	BAL-3
CYL. BALL END	CBE-1	CBE-2	CBE-3
TREE SHAPE	TRS-1	TRS-2	TRS-3
POINTED OVAL	POV-1	POV-2	POV-3
60° CENTER	60C-1	60C-2	60C-3
90° CENTER	90C-1	90C-2	90C-3

CARBIDE CUTTER SETS (10 Cutters)

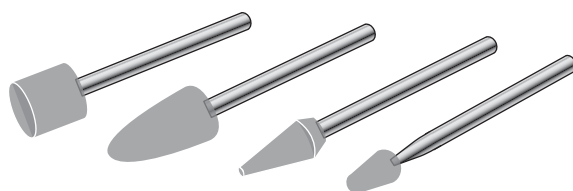
ITEM NUMBER	CUTTER HEAD DIA.
18-CARBIDE SET	$\frac{1}{8}$
14-CARBIDE SET	$\frac{1}{4}$
38-CARBIDE SET	$\frac{3}{8}$

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Discounts apply only to quantities of the same item number.

3 to 9 carbide cutters Less 15%
10 or more Less 25%

Mounted Points



ALUMINUM OXIDE ABRASIVE VITRIFIED BOND

D-M-E Mounted Points are carefully molded from the finest Aluminum Oxide Abrasive and with the exact amounts of Vitrified Bond to give the optimum holding qualities for the size of the point. They are precision formed to size and shape AFTER mounting to ensure concentricity between

the point and the shank. This eliminates the vibration that causes excessive wear and damage to both the tools and the work surface. This also reduces the danger of shattering points. Five mounted points of same shape conveniently pre-packaged. See below for quantity discounts.

GROUP "B" SHAPES (1/8 SHANK)

ITEM NUMBER (PACK OF 5)	SIZE			ITEM NUMBER (PACK OF 5)	SIZE			ITEM NUMBER (PACK OF 5)	SIZE		
	DIA.	THICKNESS	GRIT		DIA.	THICKNESS	GRIT		DIA.	THICKNESS	GRIT
B-41	5/8	5/8	60	B-72	1/2	1/8	120	B-105	1/4	1/4	90
B-44	7/32	3/8	90	B-73	1/2	1/8	120	B-121	1/2	1/2	60
B-45	3/16	5/16	90	B-74	7/32	3/32	60	B-122	3/8	3/8	60
B-46	1/8	5/16	90	B-81	3/4	3/16	90	B-123	3/16	3/16	90
B-47	1/8	5/32	60	B-82	1/2	1/4	90	B-124	1/8	1/8	90
B-51	7/16	3/4	60	B-91	1/2	5/8	90	B-131	1/2	1/2	60
B-52	3/8	3/4	60	B-95	1/8	3/16	90	B-132	3/8	1/2	60
B-53	1/4	5/8	90	B-96	1/8	1/4	90	B-133	3/8	3/8	60
B-55	1/8	1/4	90	B-97	1/8	3/8	90	B-134	5/16	3/8	60
B-61	3/4	5/16	60	B-98	3/32	1/4	90	B-135	1/4	1/2	60
B-64	1/4	1/16	60	B-101	5/8	1 1/16	60	B-136	1/4	5/16	90
B-65	1/8	1/8	60	B-103	5/8	3/16	90	—	—	—	—
B-71	5/8	1/8	90	B-104	5/16	3/8	90	—	—	—	—

GROUP "W" SHAPES (1/8 SHANK)

ITEM NUMBER (PACK OF 5)	SIZE			ITEM NUMBER (PACK OF 5)	SIZE			ITEM NUMBER (PACK OF 5)	SIZE		
	D DIA.	T THICKNESS	GRIT		D DIA.	T THICKNESS	GRIT		D DIA.	T THICKNESS	GRIT
W-142	3/32	1/4	90	W-160	1/4	1/4	60	W-176	3/8	1/2	60
W-143	1/8	1/8	90	W-161	1/4	5/16	60	W-182	1/2	1/8	90
W-144	1/8	1/4	90	W-162	1/4	3/8	60	W-185	1/2	1/2	60
W-145	1/8	3/8	90	W-163	1/4	1/2	60	W-200	3/4	1/8	60
W-146	1/8	1/2	90	W-170	5/16	1/2	60	W-215	1"	1/8	60
W-152	3/16	1/4	90	W-173	3/8	1/8	60	W-216	1"	1/4	60
W-153	3/16	3/8	90	W-175	3/8	3/8	60	—	—	—	—

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.
Shapes and sizes may be mixed.

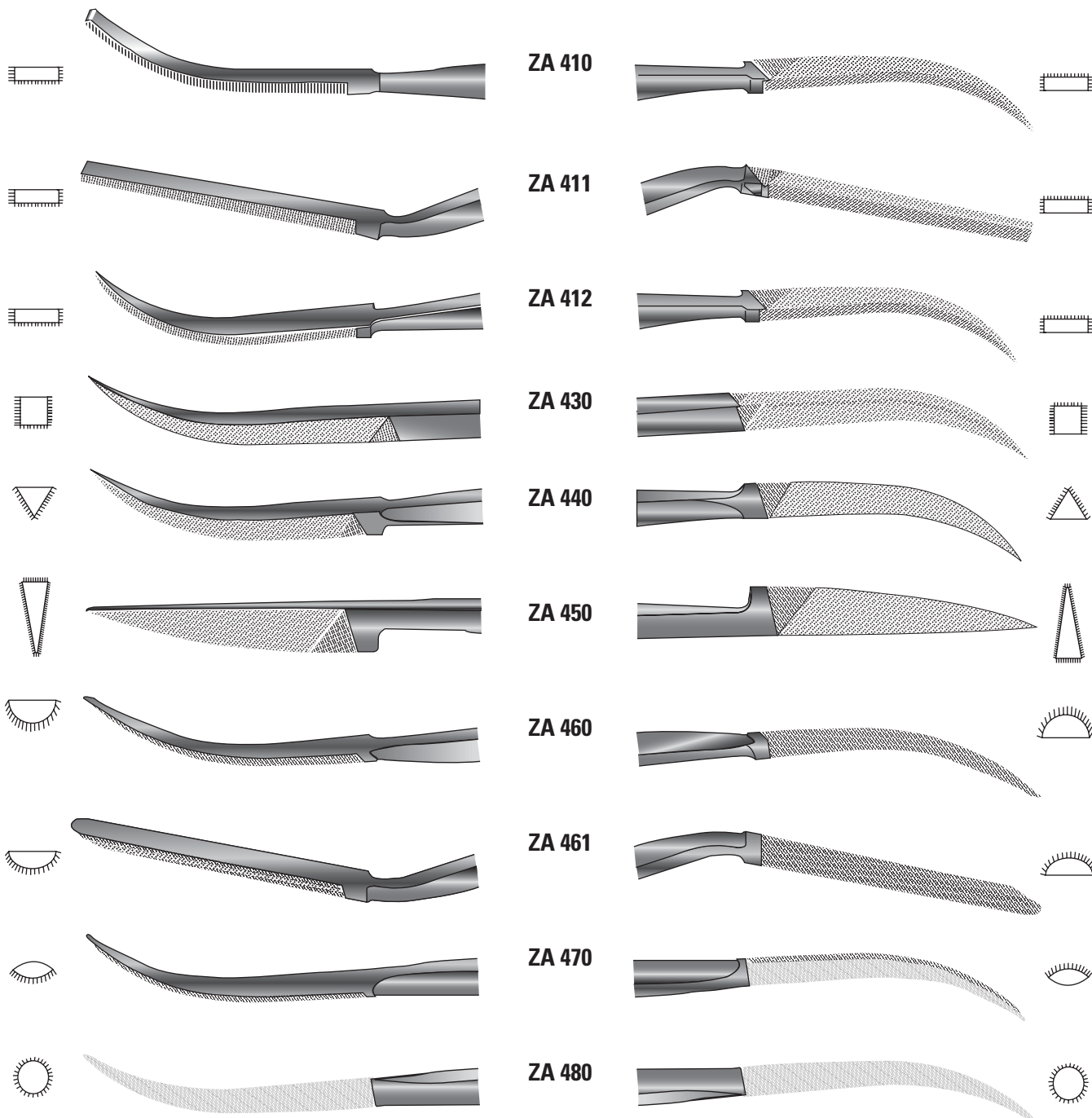
5 to 9 packs Less 10%
10 to 25 packs Less 20%
26 or more packs Less 30%

Finishing/Polishing Equipment | Mounted Points

Heavy-Duty Moldmakers' Rifflers

These Swiss Quality Heavy-Duty Moldmakers' Rifflers are made of chrome alloy steel for longer cutting life. They are ideal for "roughing-out" cavities in molds or die cast dies. Because of their length (12 inches), they provide ample surface to grasp and "bear-down" on the work.

ITEM NUMBER PREFIX*



AVAILABLE IN "0" AND "2" CUT ALL RIFFLERS ARE 7" LONG
 "0" cut – 64 teeth/inch
 "2" cut – 97 teeth/inch

WHEN ORDERING, PLEASE SPECIFY:

1. Item Number
2. Quantity
3. Method of shipment

*When ordering, add "0" or "2" to end of item number to indicate cut desired (e.g. ZA-711-0)

QUANTITY DISCOUNTS:

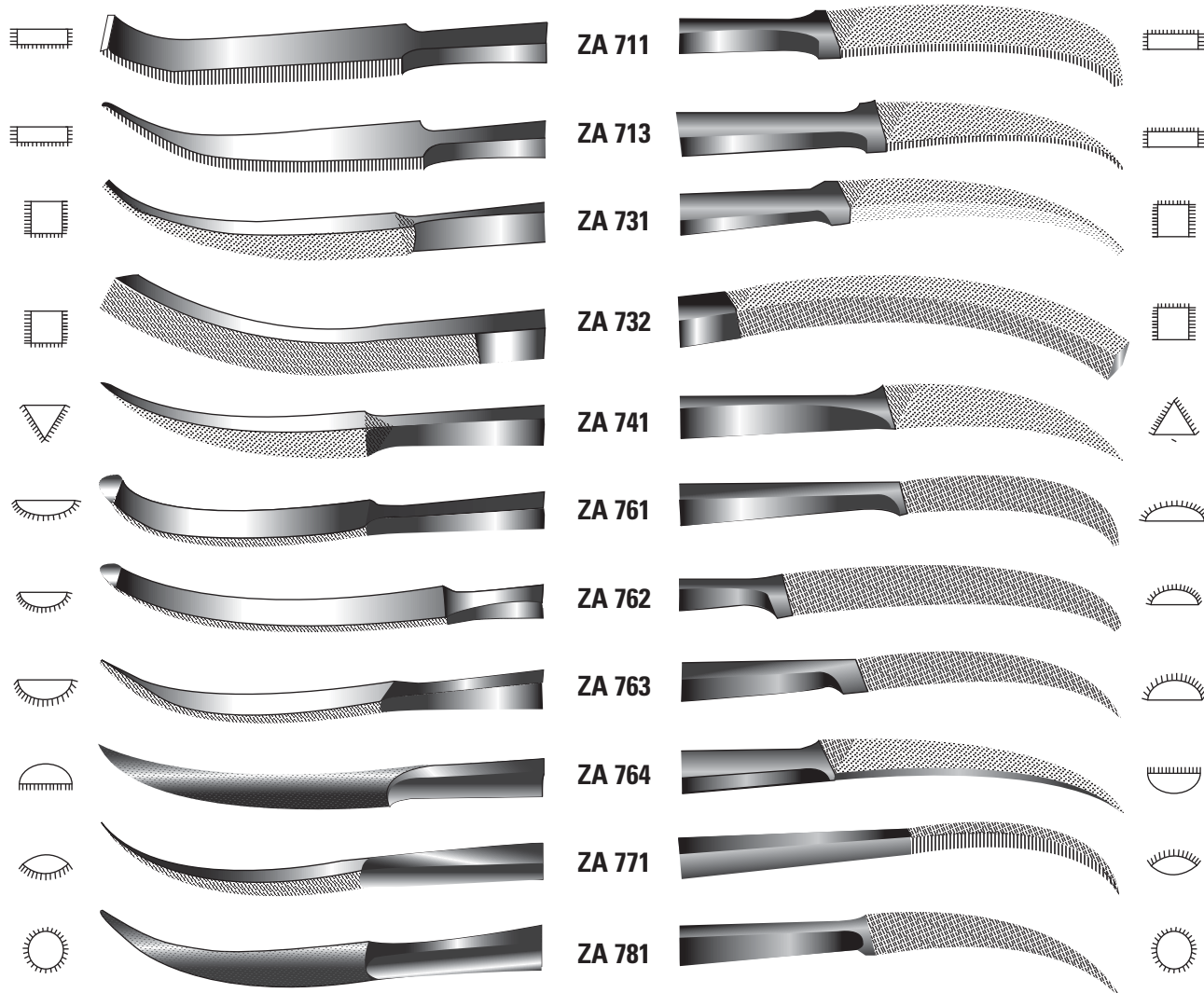
Heavy-Duty Rifflers. Discounts apply to current Net Prices. Shapes may be mixed.
 5 or more Less 10%

Silversmiths' Rifflers | Quick-Change Riffler Handles

Silversmiths' Rifflers

These Swiss Quality Precision Silversmiths' Rifflers are made of chrome alloy steel for longer cutting life. They are unsurpassed as to precision of shape, accuracy of size, hardness and durability.

ITEM NUMBER PREFIX*



AVAILABLE IN "0" AND "2" CUT ALL RIFFLERS ARE 7" LONG
 "0" cut – 64 teeth/inch
 "2" cut – 97 teeth/inch

WHEN ORDERING, PLEASE SPECIFY:

1. Item Number
2. Quantity
3. Method of shipment

*When ordering, add "0" or "2" to end of item number to indicate cut desired (e.g. ZA-711-0)

QUANTITY DISCOUNTS:

Silversmiths' Rifflers. Discounts apply to current Net Prices. Shapes may be mixed.

5 or more Less 10%

Quick-Change Riffler Handles

These sturdy, plastic-molded HANDLES for Die Sinkers' Rifflers prevent injury to the mold finisher's hand and protect the unused end of the file. They fit snugly into the palm of the hand and provide fingertip control of the riffler.

The unique design permits quick insertion and removal of the riffler without damage to tip.

ITEM NUMBER

DSR HANDLE SET

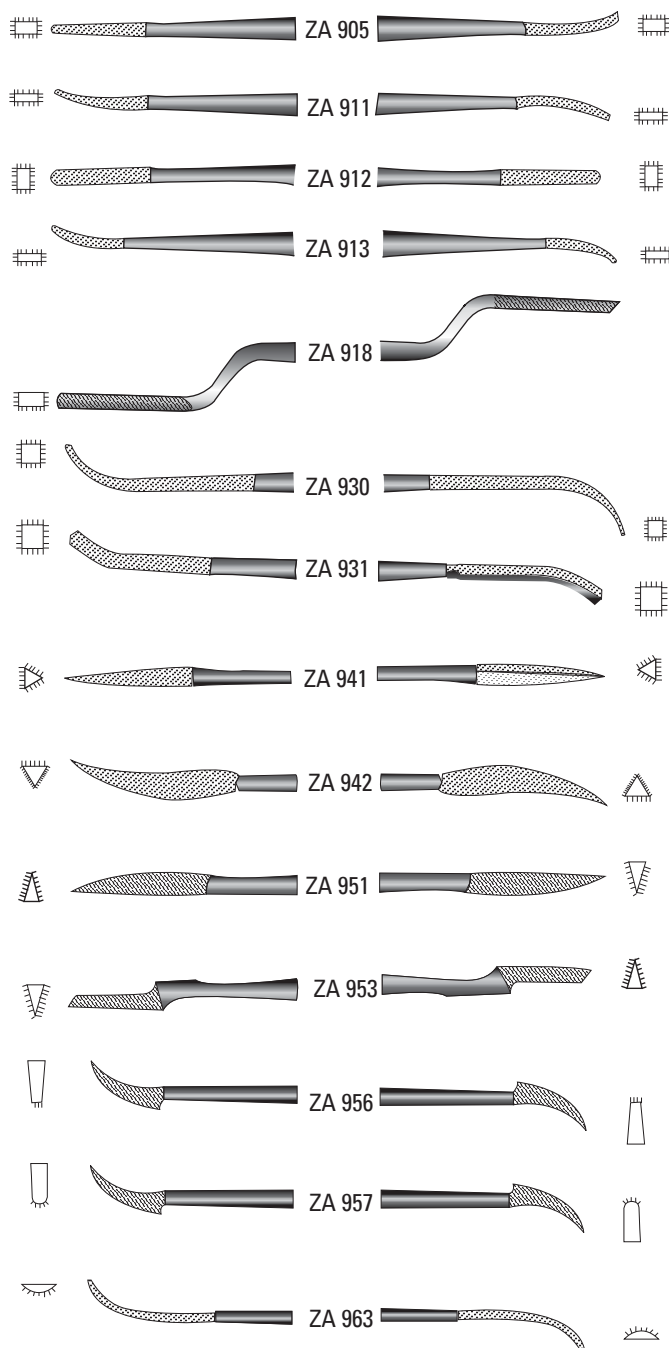
Complete Set of 4 Handles Includes:
 1 – Large 3 3/4" Long
 2 – Medium 3 3/4" Long
 1 – Small 3" Long



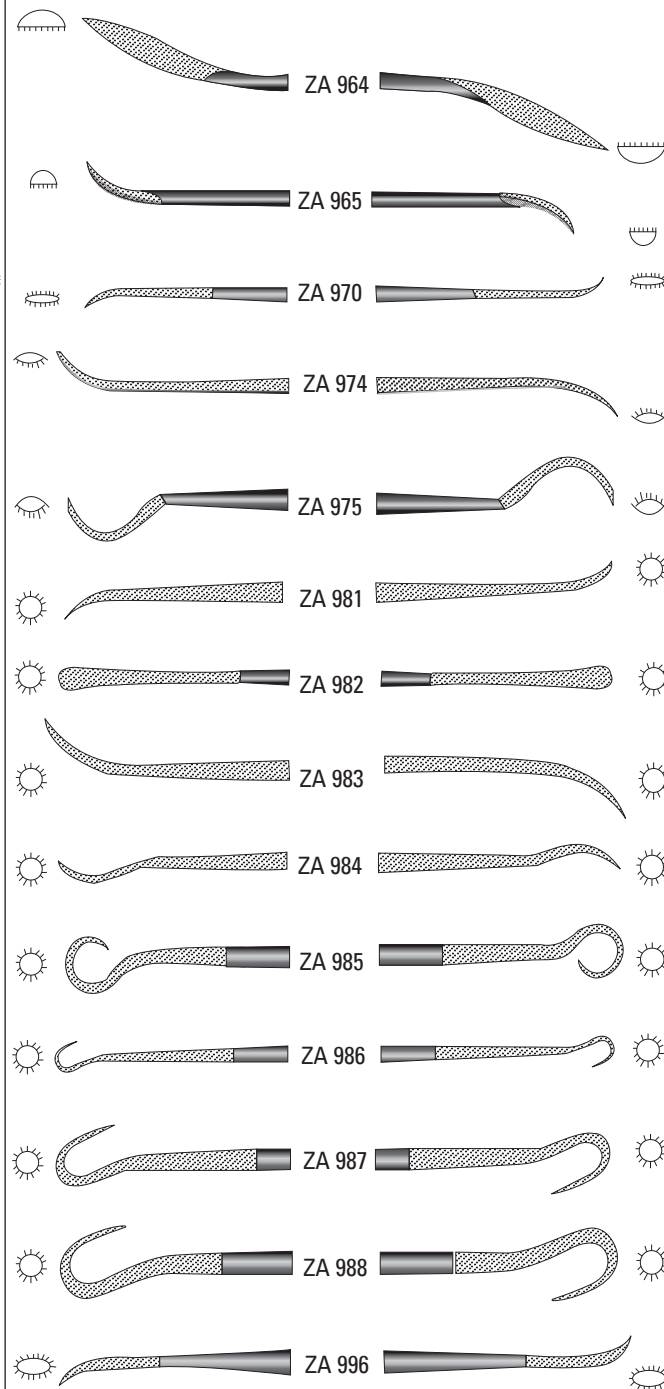
Die Sinkers' Rifflers

Exceptional Quality Swiss Die Sinkers' Rifflers are made of chrome alloy steel in the tradition of superior craftsmanship for longer cutting life. They are unsurpassed as to precision of shape, accuracy of size, hardness and durability.

ITEM NUMBER PREFIX*



ITEM NUMBER PREFIX*



AVAILABLE IN "0" AND "2" CUT ALL RIFFLERS ARE 6" LONG

"0" cut – 64 teeth/inch

"2" cut – 97 teeth/inch

WHEN ORDERING, PLEASE SPECIFY:

1. Item Number
2. Quantity
3. Method of shipment

*When ordering, add "0" or "2" to end of item number prefix to indicate cut desired (e.g. ZA-905-0)

QUANTITY DISCOUNTS:

Die Sinkers' Rifflers. Discounts apply to current Net Prices. Shapes may be mixed.

5 to 20	Less 10%
21 or more	Less 15%

Habilis Files | Diamond Needle Files

Habilis Files

• CHROME ALLOY STEEL • INTEGRAL HANDLE

D-M-E Habilis Files are made from chrome alloy steel. They are just right for those in-between jobs when a full-size file is too large. The file and integral handle are balanced to give the mold or die maker full control for efficient cutting.

A complete set, stored in a sturdy vinyl pouch, includes one each of these five popular file shapes: rectangular, half-round, triangular, square and round. These handy Habilis Files are available in coarse (00) and medium (1) cut. Files of the same shape and same cut may be purchased in boxes of ten.

Set of 5 Files	
CUT	ITEM NUMBER
00	HFS-00
1	HFS-1

FILE SHAPE	00 CUT	1 CUT	FILE CONTOUR DIMENSIONS	CUT LENGTH
	ITEM NUMBER	ITEM NUMBER		
Rectangular	HFP-00	HFP-1	$\frac{3}{8} \times \frac{1}{8}$	4"
Half-Round	HFF-00	HFF-1	$1\frac{1}{32} \times \frac{9}{64}$	4"
Triangular	HFT-00	HFT-1	$\frac{3}{8}$	4"
Square	HFL-00	HFL-1	$\frac{1}{4}$	4"
Round	HFR-00	HFR-1	$\frac{1}{4}$	4"



Set of five files in a vinyl pouch.
Overall length of files is 8½".

QUANTITY DISCOUNTS:

Habilis files. Discounts apply to current Net Prices. Shapes and cuts may be mixed.

5 or more Less 10%

Diamond Needle Files

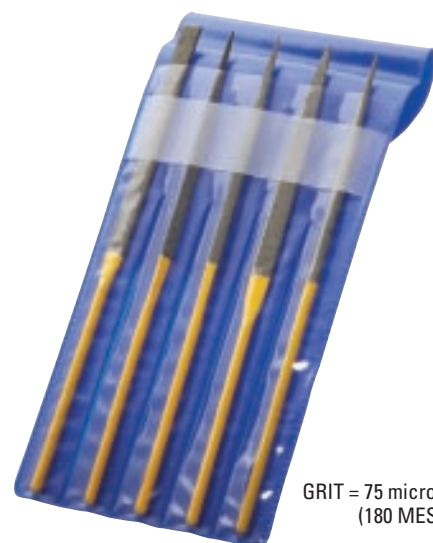
FOR FILING HARDENED STEELS, CARBIDES AND CERAMICS

D-M-E Diamond Needle Files are specially made for moldmakers. They feature efficient cutting action with only the slightest pressure and provide long tool life. The Diamond Needle Files are 5½" long with approximately 2¾" diamond surface. The round shanks are knurled to prevent slippage.

A complete set, stored in a sturdy vinyl pouch, includes one each of these five popular file shapes: rectangular, half-round, triangular, square and round. Diamond Needle Files may also be purchased individually.

FILE SHAPE	ITEM NUMBER
Rectangular	DNF-P
Half-Round	DNF-F
Triangular	DNF-T
Square	DNF-L
Round	DNF-R

Set of 5 Files	
ITEM NUMBER	
DNF-S5	



GRIT = 75 microns
(180 MESH)

Set of five files in a vinyl pouch.
Overall length of files is 5½".

QUANTITY DISCOUNTS:

Diamond needle files. Discounts apply to current Net Prices. Shapes may be mixed.

5 or more Less 10%

Abrasive Stones

FOR GENERAL AND SPECIAL PURPOSE STONING, FINISHING AND POLISHING OF MOLDS AND DIES

GENERAL PURPOSE STONES

These silicon carbide, vitrified bond stones are available in two types:

TYPE A: For use on steel prior to heat treating or for steel hardness lower than 40 HRC.

TYPE B: For steel hardness higher than 40 HRC. Ideal for restoring finish after heat treating.

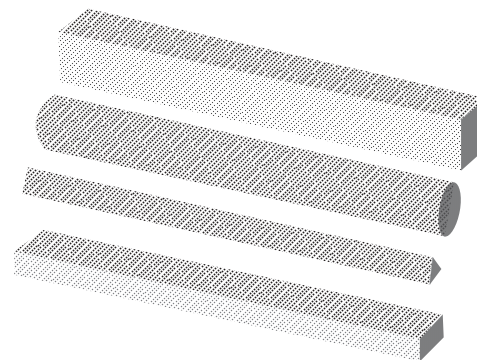
SPECIAL PURPOSE STONES

Available in three types:

TYPE E (EDM STONES): Aluminum oxide crystals in a medium hard vitrified bond, with a special resin treatment to improve cutting action on hard surface crusts, such as those produced by EDM.

TYPE M (MEDIUM OIL FILLED): Aluminum oxide crystals in a hard vitrified bond, with a special oil fill which eliminates the soaking often recommended for abrasive stones. The oil fill provides additional lubrication to prevent loading and assure optimum stock removal. Ideal for heat treated tool steels.

TYPE F (D-M-E FLEX): Aluminum oxide crystals in a hard resin bond provide some flexibility to reduce breakage. Ideal for polishing deep ribs and fine details.



GENERAL PURPOSE (TYPE A OR B)

RECTANGULAR			GRIT		
THK.	WIDTH	LGTH.	150 & 240	400	600
1/16	1/2	4"	•	•	•
1/8	1/2	4"	•	•	•
3/16	1/2	4"	•	•	•
1/4	3/4	4"	•	•	•
1/2	3/4	4"	•	•	•
1/2	1"	4"	•	•	•

GENERAL PURPOSE (TYPE A OR B)

SQUARE		GRIT		
SIZE & SHAPE	LGTH.	150 & 240	400	600
1/4 SQ	4"	•	•	•
3/8 SQ	4"	•	•	•
1/2 SQ	6"	•	•	•
3/4 SQ	6"	•	•	•

GENERAL PURPOSE (TYPE A OR B)

TRIANGULAR		GRIT		
SIZE & SHAPE	LGTH.	150 & 240	400	600
1/4 TRI	4"	•	•	•
1/2 TRI	4"	•	•	•

GENERAL PURPOSE (TYPE A OR B)

ROUND		GRIT		
SIZE & SHAPE	LGTH.	150 & 240	400	600
1/4 RD	4"	•	•	•
3/8 RD	4"	•	•	•
1/2 RD	4"	•	•	•

WHEN ORDERING, PLEASE SPECIFY:

1. Quantity

2. Size, Shape, Grit and Type

Example: (12) – 1/4 SQ x 4" – 400 GRIT-Type A

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.
Types, sizes and grits may be mixed.

10 or more Less 15%

SPECIAL PURPOSE (TYPES E, M OR F)

For other stones (sized for use with profilers), see Page 41.

SHAPE AND SIZE			TYPE E (EDM STONES) GRIT					TYPE M (MEDIUM OIL FILLED) GRIT					TYPE F (D-M-E FLEX) GRIT				
RECTANGULAR																	
THICK.	WIDTH	LENGTH	150	240	320	400	600	150	240	320	400	600	150	240	320	400	600
1/16	1/4	4"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/8	1/4	4"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/8	1/2	4"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/4	1/2	4"	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SQUARE			GRIT					GRIT					GRIT				
SIZE AND SHAPE	LENGTH		150	240	320	400	600	150	240	320	400	600	150	240	320	400	600
1/8 SQ	4"		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/4 SQ	4"		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Abrasive Stone Kit

Abrasive Stone Kit

This useful kit designed for the professional metal finisher contains a complete selection of 45 aluminum oxide special-purpose stones, plus one handheld stone holder. The special-purpose stones consist of:

- "Type E" (resin treated) for work on hard surface crusts such as EDM
- "Type M" (oil filled) for stoning heat-treated tool steels
- "Type F" (resin bonded) for added flexibility and break resistance when stoning deep ribs and fine details



ABRASIVE STONE KIT ITEM NUMBER: ASK-450

ABRASIVE STONE KIT INCLUDES

SHAPE AND SIZE			TYPE E [EDM STONES]	TYPE M (MEDIUM OIL FILLED)	TYPE F (D-M-E FLEX)
RECTANGULAR			1 EACH OF GRIT	1 EACH OF GRIT	1 EACH OF GRIT
THICK	WIDTH	LENGTH			
1/8"	1/4"	4"	150, 240, 320, 400, 600	150, 240, 320, 400, 600	150, 240, 320, 400, 600
1/8"	1/2"	4"	150, 240, 320, 400, 600	150, 240, 320, 400, 600	150, 240, 320, 400, 600
SQUARE			1 EACH OF GRIT	1 EACH OF GRIT	1 EACH OF GRIT
1/4" x 1/4"		4"	150, 240, 320, 400, 600	150, 240, 320, 400, 600	150, 240, 320, 400, 600

Abrasive Sheets | Cloth Bench Rolls | Discs and Holders

Abrasive Sheets

ALUMINUM OXIDE CLOTH AND SILICON CARBIDE WATERPROOF PAPER

- 9" × 11" Sheets
- 50 Sheets per Carton

ALUMINUM OXIDE ABRASIVE CLOTH SHEETS

ITEM NUMBER (CARTON OF 50 SHEETS)	GRIT
ABC-80	80
ABC-100	100
ABC-120	120
ABC-180	180
ABC-240	240
ABC-320	320
ABC-400	400
ABC-500	500

SILICON CARBIDE WATERPROOF PAPER

ITEM NUMBER (CARTON OF 50 SHEETS)	GRIT
ABW-220	220
ABW-280	280
ABW-320	320
ABW-400	400
ABW-500	500
ABW-600	600



Abrasive Cloth Bench Rolls

ALUMINUM OXIDE



50 YARD ROLLS			
1" WIDE		2" WIDE	
ITEM NUMBER	GRIT	ITEM NUMBER	GRIT
ABR60-1	60	ABR60-2	60
ABR80-1	80	ABR80-2	80
ABR100-1	100	ABR100-2	100
ABR120-1	120	ABR120-2	120
ABR180-1	180	ABR180-2	180
ABR240-1	240	ABR240-2	240
ABR320-1	320	ABR320-2	320
ABR400-1	400	ABR400-2	400

Abrasive Discs and Holders

ABRASIVE DISCS (SELF ADHESIVE)

DIA.	GRIT	ITEM NUMBER (PACK OF 50)
½	60	EPD-260
	80	EPD-280
	120	EPD-2120
	240	EPD-2240
	320	EPD-2320
¾	60	EPD-360
	80	EPD-380
	120	EPD-3120
	240	EPD-3240
	320	EPD-3320
1	60	EPD-460
	80	EPD-480
	120	EPD-4120
	240	EPD-4240
	320	EPD-4320

ABRASIVE DISC HOLDERS (⅙" SHANKS)

DIA.	ITEM NUMBER (PACK OF 5)
½	EPD-H2
¾	EPD-H3
1	EPD-H4

DISC HOLDER SET

ONE EACH OF EPD-H2, H3, H4	
ITEM NUMBER	
EPD-H234	



Felt Polishing Kit | Polishing Brushes | Mold Polishing and Lapping Compound

Felt Polishing Kit

NYLON HOLDERS AND FELT WHEELS

POLISHING KIT CONTENTS:

- (1) Storage Box shown at right
- (12) ¼ Felt Wheels
- (8) ½ Felt Wheels
- (6) ¾ Felt Wheels
- (1 ea) ¼, ½, ¾ Holder

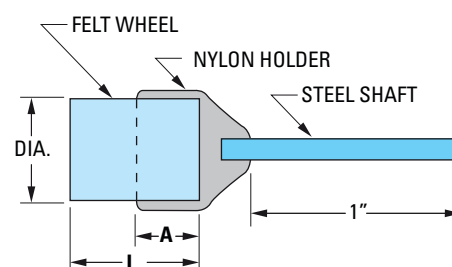
NYLON HOLDERS*				FELT WHEELS**		
ITEM NUMBER	NOM. DIA.	SHAFT DIA.	A	ITEM NUMBER	NOM. DIA.	L
14NH	¼	⅛	¼	14FW	¼	½
12NH	½	⅛	⅝	12FW	½	⅝
34NH	¾	⅛	⅝	34FW	¾	⅝
1NH18	1	⅛	⅝	1FW	1	1⅞
1NH14	1	¼	⅝	1FW	1	1⅞
112NH	1½	¼	⅝	112FW	1½	1⅞

*Sold in packs of 5 only **Sold in packs of 10 only



NO CENTER SCREW TO MAR THE WORK FINISH. Nylon Holders have side and bottom grips to prevent slipping.

POLISHING KIT
ITEM NUMBER
FPK-326



Polishing Brushes

AVAILABLE IN BRISTLE OR BRASS

ALL BRUSHES HAVE ⅜ DIAMETER SHANKS			
BRISTLE	BRUSH DIAMETER	STYLE	BRASS
ITEM NUMBER*			ITEM NUMBER*
PB-7	⅜	END BRUSH	PBR-7
PB-12	½	SMALL CUP	—
PB-11	⅝	LARGE CUP	PBR-11
PB-1	¾	WHEEL	PBR-1

*PACK OF 10



QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Pack types and styles may be mixed.

5 packs or more Less 10%

Mold Polishing and Lapping Compound

FLASH POINT = 335°F

FLAMMABLE LIMIT = 345°F

D-M-E Mold Polishing and Lapping Compound is made of an aluminum oxide abrasive powder mixed with a mineral-based carrier agent. It is an inexpensive and effective compound for polishing with brushes and brass or wood laps. Ideal for mold polishing, it can also be used for such applications as lapping bushing I.D.'s or enlarging undersized ejector pin bores.

ITEM NUMBER*	GRIT
PLC-220	220
PLC-280	280
PLC-400	400
PLC-600	600

*16 oz. can



Diamond Compound | Thinner Lubricator

Finishing/Polishing Equipment | Diamond Compound; Thinner Lubricator

Diamond Compound

FOR HIGH-QUALITY MOLD AND DIE POLISHING

Quality of mold or die finish is frequently an important factor in how a mold or die operates. D-M-E Diamond Compound is proven to produce the finest quality finish with considerable savings in time and labor.

D-M-E Diamond Compound contains no adulterants, nor non-graded, non-working diamond “fines”. The precision-graded diamond particles are uniformly and permanently dispersed and blended in a high-quality, universally soluble, synthetic vehicle; giving the best composition possible. It will not “cake” or dry out and is completely stable at temperatures from –50°F to +150° F, permitting high-speed mechanical polishing operations.

Available in 2½ gram, 5 gram, and 18 gram sizes.

Since D-M-E Diamond Compound is not water soluble, the use of water as a thinning agent is not recommended. For best results, use D-M-E THINNER LUBRICATOR to reduce the compound to its most efficient working consistency.



18 Gram



5 Gram



2½ Gram

FINISH	ITEM NUMBER	LABEL COLOR GUIDE	NAT'L BUR. STD. GRADE	MICRON SIZE. RANGE¹	COMPOUND NUMBER AND DIAMOND CONTENT	APPROX. MESH EQUIVALENT
Final ultra-mirror polishing of plastics mold cavities.	DC-00H	Pink	¼	0-½	½-Heavy	100,000
	DC-0H	Silver	½	0-1	1-Heavy	60,000
Final high-mirror polishing of selected work such as optical quality plastics mold cavities.	DC-1M	Ivory	1	0-2	1-Medium	15,000
	DC-1H	Ivory	1	0-2	1-Heavy	15,000
Final mirror-polishing of high-quality plastics mold cavities, especially those producing clear plastic parts.	DC-3M	Yellow	3	1-5	3-Medium	9,000 to 7,000
	DC-3H	Yellow	3	1-5	3-Heavy	9,000 to 7,000
Final polishing of most plastics mold cavities.	DC-6U	Orange	6	4-8	6-Universal	5,000 to 2,500
	DC-6M	Orange	6	4-8	6-Medium	5,000 to 2,500
Intermediate polishing of plastics mold cavities and final polishing of die cast die cavities.	DC-9U	Green	9	6-12	9-Universal	1,300
	DC-9M	Green	9	6-12	9-Medium	1,300
	DC-15U	Blue	15	8-22	15-Universal	1,300 to 900
	DC-15M	Blue	15	8-22	15-Medium	1,300 to 900
Preliminary polishing of all plastics mold and die cast die cavities.	DC-30U	Red	30	20-40	30-Universal	800 to 550
	DC-30M	Red	30	20-40	30-Medium	800 to 550
	DC-45U	Brown	45	30-60	45-Universal	500
	DC-45M	Brown	45	30-60	45-Medium	500
Heavy stock removal. Enlarging holes in hardened steel.	DC-170H	Grey-Black	170		170M-Heavy	120 to 80

¹The smaller the micron size, the finer the finish.

Thinner Lubricator

FOR DIAMOND COMPOUND

When polishing with Diamond Compound, stock removal may cause the compound to thicken. Thinner Lubricator is recommended to prevent this thickening and assure proper lubrication of the diamond particles. It is supplied in a convenient 4-ounce squeeze bottle.

ITEM NUMBER
TL-4



Mold Finish Comparison Kit

EXPANDED VERSION – 12 SAMPLES FINISHED TO SPI STANDARDS

- Eliminates errors or guesswork in achieving desired or specified finishes
- Saves time...eliminates over-polishing
- Provides a visual and numerical standard for specifying mold/part finishes

Professionally finished to SPI standards, this kit is an invaluable tool for both selection of finishes required and comparison to work in progress. The visual and numerical standards are also helpful in communications between end user, molder and moldmaker. Each finish has been generated on a 1" diameter x $\frac{3}{8}$ "-thick piece of H-13 steel. Edges are chamfered and O.D. is knurled for safe, easy pick-up and handling. Finish numbers are stamped on the back of each sample for quick reference. A molded plaque in the kit's lid shows the part finishes that result from each mold finish.



ITEM NUMBER

MFK-1200

FINISH TYPE	DESCRIPTION	ROUGHNESS AVERAGING (RA) micro-inches range	COMMENTS
A-1	grade # 3 diamond buff	0-1	<ul style="list-style-type: none"> • for mirror or optical finishes • most time consuming and costly finishes to achieve • steel grade important to results (D-M-E No. 3 or No. 5 steel recommended)
A-2	grade # 6 diamond buff	1-2	
A-3	grade # 15 diamond buff	2-3	
B-1	600 grit paper	2-3	<ul style="list-style-type: none"> • removes all tool and machining marks • provides good mold release • light reflecting finish on molded part, some sheen
B-2	400 grit paper	4-5	
B-3	320 grit paper	9-10	
C-1	600 stone	10-12	<ul style="list-style-type: none"> • removes all tool and machining marks • provides good mold release • mute finish on molded part, no sheen
C-2	400 stone	25-28	
C-3	320 stone	38-42	
D-1	dry blast glass bead #11 (8" distance at 100 psi; 5 secs.)	10-12	<ul style="list-style-type: none"> • for decorative finishes • often used for diecast and thermoset tooling • helps hide shrink marks and other imperfections • dull, non-reflecting finish on molded or cast part
D-2	dry blast # 240 oxide (5" distance at 100 psi; 6 secs.)	26-32	
D-3	dry blast # 24 oxide (6" distance at 100 psi; 5 secs.)	190-230	

Finishing Applications

The D-M-E Ultraform Ultrasonic Finishing and Polishing System is highly effective at rapid deburring, filing, stoning, polishing and lapping on a variety of surfaces, including EDM, tungsten carbide, and mold steel. Available in two types of ultrasonic models, the units replace costly, time-consuming hand finishing operations.

D-M-E carries a large selection of finishing and polishing hand tools, as well as mechanical devices, that are required to complete the final contours and finishes of molds.

In addition to the Ultraform, D-M-E carries a large selection of finishing and polishing hand tools, as well as mechanical devices, that are required to complete the final contours and finishes of molds. While mold finishers and polishers hone different techniques that are unique to each individual, most require access to a broad variety of tools and materials in order to accomplish a specific task.

Handpieces like those in the Minitor D Series perform well for light metal removal in the mold finishing process. A wide selection of carbide burrs, mounted stones and similar accessories in different shapes, sizes and grits provide the ability to achieve a preferred finish.

D-M-E's extensive selection of files, especially rifflers, offers a wide array of shapes, cuts and tooth structures. These tools are excellent at getting into areas that would be impossible to access with conventional files.

An assortment of abrasive products, including stone kits and abrasive sheets, cloths and discs, are available in various grit sizes. Polishing sticks for hand or Profiler applications are also stocked.

For that high polished "super" finish or "mirror" finish on a mold surface, D-M-E Diamond Compound is available in three applicator syringe sizes.



Important Mold Finishing Tips

- When hand grinding in the same direction of the cutting tool rotation, use extra caution since this motion can cause the stone to cut deeper than the desired depth. Also, don't try to cover too large of an area at any one time. Working on a number of small areas and blending them together provides more uniform results.
- Use extra care to remove all foreign substances when filing over an area on which some form of abrasive has previously been used. The grit from abrasive stones or cloths will usually be charged into the surface of the metal, causing the file to dull rapidly.
- When filing an area that must be flat, crisscross file strokes. This removes waves and ripples that develop when working in only one direction.
- Stones of the same grit, but made from different abrasive materials and with a different type of bond, may produce different finishes.
- Do not mix grades of diamond compound. And, if the first grade of diamond compound used does not remove marks from the most recent stoning operation, don't continue. These marks must be removed with a coarser grade of compound or the surface will have highly polished, shiny scratches.



D-M-E ProWeld™

MICRO-WELDING SYSTEM
FOR PRECISION MOLD REPAIR



ProWeld™

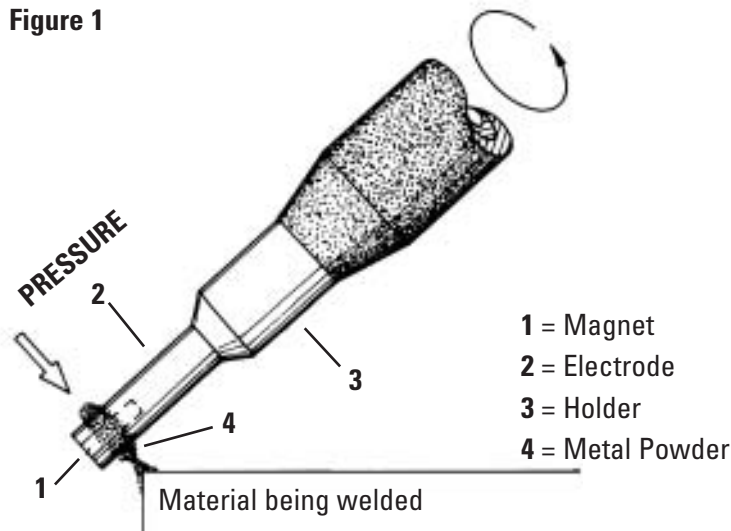
ProWeld™ Benefits

Advantages of ProWeld

- Perform high-quality repairs of very small mold areas
- Increase the life of a mold after repair
- Reduce repair costs up to 85% with special metal alloys developed for all conventional types of steel
- Modern control electronics ensure a homogenous welding pattern even under the most difficult working conditions
- Process emits almost no heat
- Weld material is not excessive – hand and machine finishing is easy
- Only gentle pressure is required on welding electrodes to prevent the formation of cavities or pin holes
- Magnetic electrodes pick up metal powder which can be easily placed on the workplate
- Suitable for all forms of mold damage; no need for other types of welding, e.g. argon, laser welding, TIG
- Safe and easy to operate, no special training needed
- Emits no harmful welding fumes or toxic gases
- No scaling or flaking. High-quality welding alloys are free of impurities. The resulting weld is strong, homogenous and reliable

Precision Mold Repairs and Alterations Made Easy with ProWeld

Figure 1



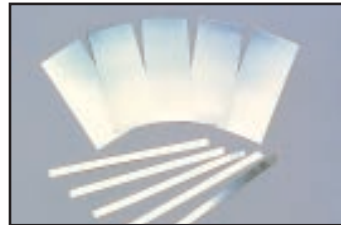
The Micro-Welding Method

With only gentle pressure ProWeld uses electrical pulses to fuse metal powder, metal sheets, strips or wire etc., to the contour of the mold under repair (Fig. 1).

Figure 2



Figure 3



Using the appropriate electrode, powder (Fig. 2), metal or strips (Fig. 3), which contain alloying properties of the material being welded, are first fused then bonded to the base metal by a systematic and controlled supply of energy.

Figure 4



Figure 5



This produces a weld (Figs. 4 and 5) which also can be controlled by various adjustments of the power pack (frequency of the electrical pulses, output current). Special training is not needed to successfully perform this welding process.

ProWeld™ Standard Equipment



Standard Equipment

Complete ProWeld system includes:
(Dimensions in millimeters)



ITEM NUMBER	DESCRIPTION
UMW0001	Power pack with welding cord, grounding cord and plate, power cord, foot switch and all accessories listed below
UMW0002	N51—Standard SKH-51 steel powder (50 grams) (63 Rc; for D-2/M-2/S-7 steels)
UMW0003	N80—Standard NAK80 steel powder (50 grams) (38-40 Rc; for P-20/P-21 steels)
UMW0004	NAK80—Standard steel sheet (10 sheets, 0.1T x 5W x 100L) (38-40 Rc; for P-20/P-21 steels)
UMW0005	NTA1—Ni Alloy sheet (10 sheets, 0.1T x 30W x 70L) (135HV; for all steels)
UMW0006	NTA2—Ni Alloy sheet (10 sheets, 0.2T x 30W x 70L) (135HV; for all steels)
UMW0009	Magnet electrode (2 dia. x 50L)
UMW0010	Magnet electrode (3 dia. x 50L)
UMW0011	Magnet electrode (4 dia. x 60L)
UMW0012	Magnet electrode (4 dia. x 50L)
UMW0013	Standard electrode (2 dia. x 50L)
UMW0014	Standard electrode (3 dia. x 50L)
UMW0015	Standard electrode (4 dia. x 50L)
UMW0016	Standard electrode (1.2T x 5W x 35L)
UMW0017	Standard electrode holder (black) (used with UMW0015)
UMW0018	Magnet electrode holder (brown) (used with UMW0011 and UMW0012)
UMW0019	Standard electrode holder (black) (used with UMW0016)
UMW0020	Standard electrode holder (black) (used with UMW0013)
UMW0021	Standard electrode holder (black) (used with UMW0014)
UMW0022	Magnet electrode holder (brown) (used with UMW0009 and UMW0010)

SPECIFICATIONS

Input Voltage	120 VAC
Consumable Power	600 VA
Output Power	700W
Output Voltage	0 – 9V
Output Current	0 – 1100 Amps
Control System	SCR Switching System
Auto Timer On	0.5 sec.
Dimensions (inches)	W6.5 x D17.75 x H16
Weight	62 lbs

NOTE: See next page for additional welding materials.

Additional Welding Materials for ProWeld™

Welding Material: Fine Powder – Precision Work

ITEM NO.	WELDING MATERIALS	JAPANESE MOLD STEEL	QUANTITY	HARDNESS ROCKWELL C	U.S. MOLD STEEL EQUIVALENT
UMPS010	SP-51	SKH-51	50 grams	Rc 63 Min.	D-2, M-2, S-7
UMPS011	SP-11	SKH-11	50 grams	Rc 50 Min.	A-2, D-2
UMPS012	SP-61	SKD-61	50 grams	Rc 53 Max.	H-13

Welding Material: Powder

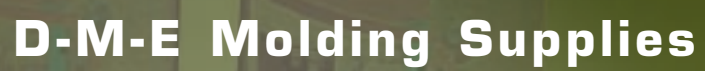
ITEM NO.	WELDING MATERIALS	JAPANESE MOLD STEEL	QUANTITY	HARDNESS ROCKWELL C	U.S. MOLD STEEL EQUIVALENT
UMP0067	N-11	SKD-11	50 grams	Rc 50-60 Min.	A-2, D-2
UMP0072	N-38	HPM38	50 grams	Rc 30 Max.	All Die Steels 420SS (Prehardened)
UMP0073	N-39	PD555	50 grams	Rc 50-52	STAVAX
UMP0060	N-40	Ni-Cr Alloy	50 grams	Rc 36-42	All Mold Steels
UMP0062	N-50	Ni Alloy	50 grams	Rc 47-53	All Mold Steels
UMP0068	N-61	SKD61	50 grams	Rc 40-53 Max.	H-13, 420SS
UMP0063	N-13	Ni Alloy	50 grams	Rc 10-15	All Mold Steels
UMP0061	N-90	Ni Alloy	50 grams	Rc 16-20	All Mold Steels
UMPS017	N-14	SCM, PHM-2	50 grams	Rc 30-35	Good Choice for P-20
UMPS018	N-15	SNCM, HPM17	50 grams	Rc 30-35	Good Choice for P-20
UMPS019	N-16	SNCM, 2767	50 grams	Rc 30-35	Good Choice for P-20
UMP0071	N-55	NAK55	50 grams	Rc 38-41	P-21

Welding Material: Sheet *(dimensions in millimeters)*

ITEM NO.	WELDING MATERIALS	JAPANESE MOLD STEEL	QUANTITY	HARDNESS ROCKWELL C	U.S. MOLD STEEL EQUIVALENT
UMA0001	NT-6		10 / 0.2T x 5w x 100L	Rc 30	All Mold Steels
UMA0054	NS-1	SS Alloy	10 / 0.1T x 30w x 70L	Rb 90	All Mold Steels
UMA0055	NS-2	SS Alloy	10 / 0.2T x 30w x 70L	Rb 90	All Mold Steels
UMD0102	HPM-50	HPM50	10 / 0.2T x 5w x 100L	Rc 38-40	P-21 Improved
UMD0107	HPM-38	HPM38	10 / 0.2T x 5w x 100L	Rc 30-33	420SS
UMD0104	STAVAX	STAVAX	10 / 0.2T x 5w x 100L	Rc 50-52	STAVAX, 420SS
UMD0101	HPM-2	SCM440, IMPAX, HPM-2	10 / 0.2T x 5w x 100L	Rc 30-50	P-20
UMD0103	MAS1		10 / 0.2T x 5w x 100L	Rc 50-53	P-20
UMD0106	NAK55	NAK55	10 / 0.2T x 5w x 100L	Rc 38-40	P-21

Welding Material: Wire

ITEM NO.	WELDING MATERIALS	JAPANESE MOLD STEEL	QUANTITY	HARDNESS ROCKWELL C	U.S. MOLD STEEL EQUIVALENT
UMA0056	S2	SS Alloy	1 / 0.2 dia. x 5m	Rb 90	All Mold Steels
UMA0057	S3	SS Alloy	1 / 0.3 dia. x 5m	Rb 90	All Mold Steels
UMA0058	S4	SS Alloy	1 / 0.4 dia. x 5m	Rb 90	All Mold Steels
UMA0059	S5	SS Alloy	1 / 0.5 dia. x 5m	Rb 90	All Mold Steels



A collage of various tools and equipment. At the top center is a black machine labeled 'CLEAN-FLOW'. To its right is a green heat gun. Below the heat gun is a blue air blower. To the left of the heat gun is a grey hopper. In the center is a silver air compressor. Surrounding these are various hand tools like screwdrivers, wrenches, and sockets. There are also some containers of cleaning products like 'Gojo' and 'Dettol'.

Molding Supplies

Mold Cleaner and Mold Saver

Available in 12 oz. aerosol or 1 gallon non-aerosol...
individually or by the case.

D-M-E MOLD CLEANER

D-M-E Mold Cleaner is used to remove corrosion-forming substances such as lactic acid, urea and sodium chloride, which are common in perspiration residues left by ordinary handling of polished cavities. In addition to cleaning the polished cavity it also provides up to 20 days rust protection at temperatures to 120°F at 100% humidity.

Use D-M-E Mold Cleaner to clean polished mold surfaces and protect them for up to 20 days.
Use D-M-E Mold Saver for long-lasting protection from corrosion.



ITEM NUMBER	MOLD CLEANER DESCRIPTION
CLE 0001	(1) 12 oz. aerosol can
CLE 0012	Case of (12) 12 oz. aerosol cans
CLE 0004	(1) one gallon can
CLE 0016	Case of (4) one gallon cans

D-M-E MOLD SAVER

D-M-E Mold Saver is an ideal protective coating for molds to be stored over a long period of time. It protects polished cavities and all metal parts from costly corrosion damage. Its thin, transparent film averages about .0003" thick. It is soft, dry and waxy and can be easily wiped off without solvents. One can of Mold Saver covers about 80 square feet.



ITEM NUMBER	MOLD SAVER DESCRIPTION
SAV 0001	(1) 12 oz. aerosol can
SAV 0012	Case of (12) 12 oz. aerosol cans
SAV 0004	(1) one gallon can
SAV 0016	Case of (4) one gallon cans

ACCESSORIES FOR MOLD CLEANER AND MOLD SAVER



TRIGGER PUMPS
for 15 oz. cans

ITEM NUMBER	DESCRIPTION
SAV 0003	Package of (6) trigger pumps



"SURE SHOT" COMPRESSED-AIR
SPRAY CANISTER

Holds one quart of Mold Cleaner or Mold Saver. Metal can is refillable and reusable. Includes stemmed air valve and safety valve.

ITEM NUMBER
SAV 0002

Mold Release Sprays

- Improves productivity and reduces rejects
- Virtually no build-up, extends the life of your mold
- Large, 16 oz. fill
- Three formulations to suit a wide range of release applications

D-M-E's line-up of Mold Release Sprays provide production-proven value at an economical price. These long-lasting, top-quality sprays are ideal for most applications and plastics materials. They will actually improve mold cycle times while reducing scrap. Try these specially formulated Mold Release Sprays and give yourself a competitive edge.



PREMIUM SILICONE MOLD RELEASE

This premium-quality silicone mold release has been formulated to provide superior performance for most plastics molding applications. The high silicone content and standard concentration of propellants are FDA approved for food industry applications under section 175.300 of the Food and Drugs Code of Federal Regulations. This long-lasting, low build-up mold release is the ideal product for tough, sticking problems that require a top-quality lubricant.

ITEM NUMBER*

MRFS514

SILICONE MOLD RELEASE

This all-purpose silicone mold release has been formulated to provide dependable performance with outstanding economy. The long-lasting, low build-up silicone concentration is ideal for most plastics molding applications.

ITEM NUMBER*

MRES414

PAINTABLE MOLD RELEASE

Contains no silicone

This high-quality mold release is a special formulation that will not interfere with cosmetic operations such as painting, plating, hot stamping, etc. The low concentration does not promote build-up, and is ideal for styrenes and most other plastic materials. For superior results, pre-cleaning of molded parts may be desirable.

ITEM NUMBER*

MRPS114

*Item numbers shown are for case of 12 cans.
To order individual cans add "CAN" to item numbers shown (e.g. MRFS514CAN).

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices.

2 to 5 cases	Less 3%
6 to 9 cases	Less 5%
20 to 50 cases	Less 8%
51 or more cases	Less 12%

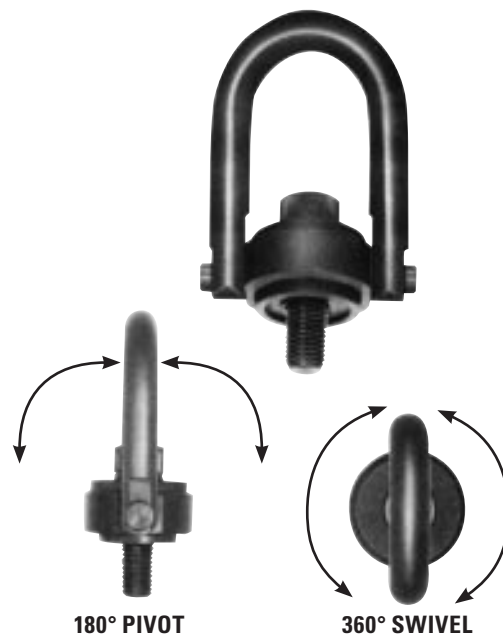
BLANKET ORDER DISCOUNT:

Money-saving blanket orders reduce your inventory costs and permit maximum savings over a 12-month period. They are accepted provided the combined annual order totals 20 cases or more. Split shipments against blanket orders must be in quantities of 10 cases or more.

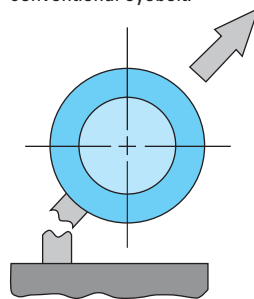
Hoist Rings – INCH

Whether you're hoisting an 800-pound mold base or a 15,000-pound piece of molding room equipment, D-M-E 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 D-M-E Hoist Rings an important addition to any mold shop or molding 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 operating guidelines 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

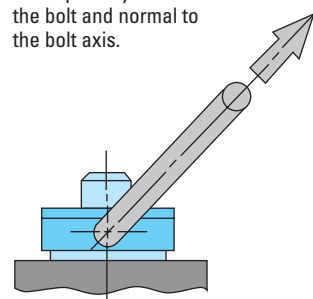


See what happens when heavy side loads are applied to a conventional eyebolt.



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

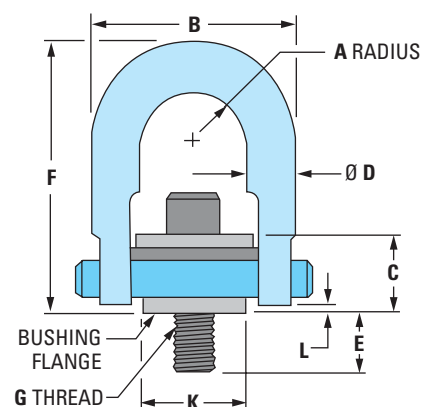
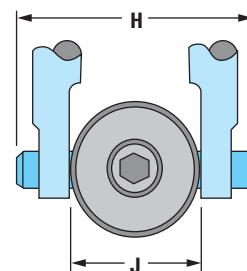
Installation Data

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.

Material: Alloy steel (certified heat treatment), black oxide
Safety Factor: 5 times rated load in any direction
Range of Movement: 360° swivel; 180° pivot
Dimensions: Shown in inches (in)



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

Hoist Rings – SHR (includes bolt and retaining ring)

ITEM NUMBER	RATED LOAD (LBS)	A RADIUS	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	3 1/4	15/32	3/4	3/4	4 3/4	1 1/2-13	3 5/8	2	1 1/2	3/32	28	2 LB. 5 OZ.
SHR0004	4,000	7/8	3 1/4	15/32	3/4	1	4 3/4	5/8-11	3 5/8	2	1 1/2	3/32	60	2 LB. 7 OZ.
SHR0005	5,000	7/8	3 1/4	15/32	3/4	1	4 3/4	3/4-10	3 5/8	2	1 1/2	3/32	100	2 LB. 9 OZ.
SHR0006	10,000	1 13/32	4 13/16	1 11/16	1	1 1/2	6 1/2	1"-8	5 1/8	3	2 5/16	17/64	230	7 LB.
SHR0007	15,000	1 3/4	6	2 1/8	1 1/4	1 7/8	8 3/4	1 1/4-7	6 1/2	3 3/4	3 1/4	11/32	470	14 LB.

**Recommended torque load +25% – 0

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

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



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.

QUANTITY DISCOUNTS:

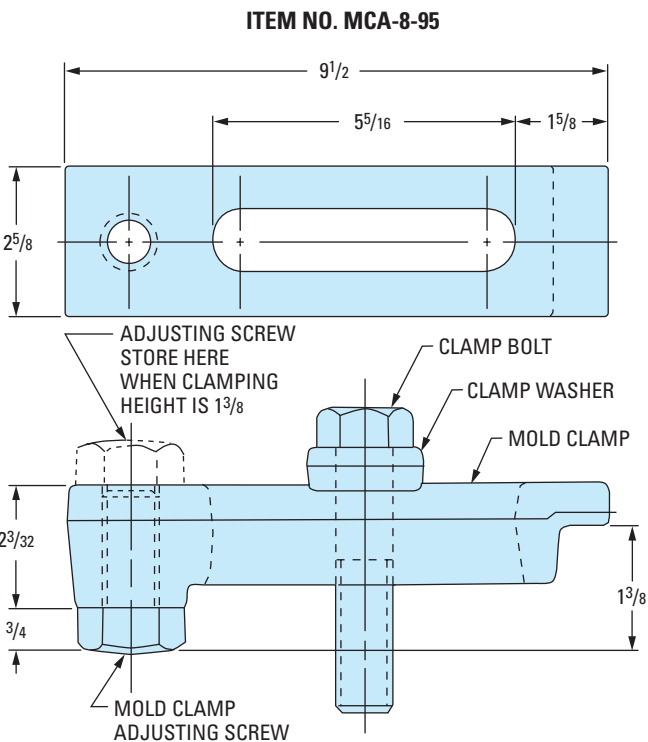
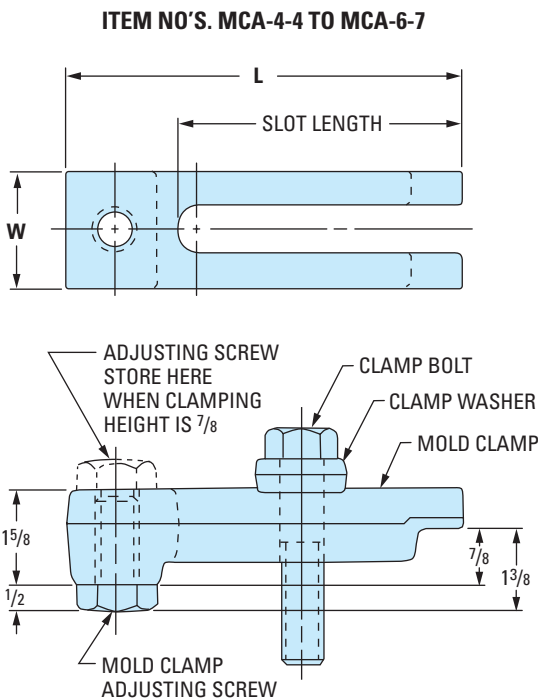
Discounts apply to current Net Prices. Ring and replacement bolts counted separately for quantity discounts. Different sizes may be combined.

25 to 49	Less 10%
50 to 99	Less 13%
100 or more	Quoted by request

Mold Clamps

FOR PLASTICS MOLDS

Forged from Hi-tensile steel and carbonitride hardened. The design features a hardened no-turn washer and a shape and range of sizes that permit universal application for any mold.



Mold Clamps for Plastics Molds (MCA)

ITEM NUMBER	CLAMP DIMENSIONS			CLAMP SCREW SIZE ¹ THD. x LENGTH	REPLACEMENT PARTS	
	L LENGTH	W WIDTH	SLOT LENGTH		CLAMP BOLT AND WASHER KIT	ADJUSTING SCREW
MCA-4-4	4 ³ / ₁₆	1 ⁵ / ₈	2 ¹³ / ₁₆	1/2-13 x 3"	MCK-4	MCAS-5
MCA-5-5	5 ³ / ₁₆	1 ⁷ / ₈	3 ³ / ₈	5/8-11 x 3 1/2"	MCK-5	MCAS-6
MCA-5-7	7	1 ⁷ / ₈	5	5/8-11 x 3 1/2"		
MCA-6-5	5 ³ / ₁₆	2	3 ³ / ₈	3/4-10 x 3 1/2"	MCK-6	
MCA-6-7	7	2	5	3/4-10 x 3 1/2"		
MCA-8-95	9 1/2	2 ⁵ / ₈	5 ⁵ / ₁₆	1-8 x 4 1/2"	MCK-8	MCAS-8

Mold Assembly consists of:
1 – Mold Clamp
1 – Clamp Washer
1 – Clamp Bolt
1 – Mold Clamp Adjusting Screw

QUANTITY DISCOUNTS:

Discounts apply to current Net Prices. Standard sizes may be combined on one order for quantity discounts.

60 to 99 Less 5%
100 or more cases Less 10%

¹NOTE:

Mold Clamp Screws supplied with assembly are of high-tensile strength alloy steel. Lengths shown will accommodate clamping ledges up to a maximum of 1.375. For Clamping ledges in excess of 1.375, use longer screws accordingly.

Jiffy-Tite® Connector Seals | Seal Removal Tool Kit & Wrenches | Heater Puller (with snap ring)

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 connections.

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 provide easier seal removal.

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

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

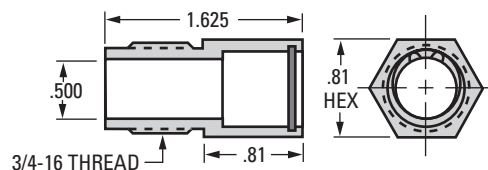


JIFFY-TITE WRENCHES FOR MALE AND EXTENSION PLUGS			
HEX SIZE	SQUARE DRIVE	ITEM NUMBER	FITS PLUGS
7/16	3/8	SJP-251	JP(B)-250, 251
9/16	3/8	SJP-252	JP(B)-252(SV) JP(B)-351, 352(SV)
11/16	3/8	SJP-253	JP(B)-253(SV) JP(B)-353(SV)
7/8	3/8	SJP-354	JP-354(SV)
7/8	1/2	SJP-554	JP-553, 554
1 1/8	1/2	SJP-556	JP-556

JIFFY-TITE WRENCHES FOR FEMALE PLUGS			
HEX SIZE	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
1 1/8	1/2	SJP-556F	JPF-0556

Heater Puller (with snap ring)

Provides trouble-free removal of Shoulder-Style Cartridge Heater.



Puller with Ring

ITEM NUMBER
EHP0250

Replacement Snap Rings

ITEM NUMBER**
EHP0001

**Packs of 25.

D-M-E Molding Supplies

The Best of Northern Supply, Nickerson and OHS

D-M-E Molding Supplies combines three great companies — Northern Supply, Nickerson and OHS — into one comprehensive, convenient source for high-quality, economical products.

Our worldwide sourcing and purchasing power provides you with the broadest array of great products at affordable prices. We're also bringing new products to market more quickly than ever. And, with deep inventories at four locations across North America, we can get you what you need fast.

Call toll-free to receive your copy of the D-M-E Molding Supplies catalog, complete with dozens of new products, plus thousands of selections that have been favorites of our plastics processing customers for decades. In the U.S., call 866-470-3542; in Canada, phone 888-808-0706.

D-M-E Molding Supplies is powered by D-M-E Company, an essential mold technologies resource to customers worldwide. In addition to offering the plastics industry's broadest range of market-leading products, D-M-E provides unsurpassed knowledge, a global logistics infrastructure and exceptional service every step of the way. This support ensures that customers get the speed, accuracy and quality they need across D-M-E's complete line of hot runner systems, control systems, mold bases and components, and moldmaking and molding equipment and supplies.

	<p>Drying Hoppers, Drawer Magnets, Storage Bins, Loaders, Tilters, Dumpers, Conveyors, etc.</p>		<p>Aluminum Manifolds, Flow Regulators, Ball Valves, Couplers, PVC Air & Water Hose, etc.</p>		<p>Insulated Heaterbands, Thermocouples, Thermometers, DIN Controllers, etc.</p>
<p>Auxiliary Equipment</p>	<p>Plumbing Products</p>	<p>Heaters and Sensors</p>			
	<p>Ceramic Knife, Sprue Pullers, Gatecutters, Electric Nippers, Mold Hammers, etc.</p>		<p>WD-40, Silicone Mold Release, Supergrease, Mold Cleaner, Anti-Seize, etc.</p>		<p>Screw Tips, Nozzle Bodies, Machine Mounts, Mold Clamps, Shutoff Nozzles, etc.</p>
<p>Cutter and Hand Tools</p>	<p>Releases and Lubricants</p>	<p>Machine Parts</p>			

Auxiliary Equipment

DRYING HOPPERS

Fully insulated, modular, stainless steel construction DRI-AIR's Modular Hoppers assure uniform material flow with: NO channeling, NO feedout problems, NO mixing problems, NO thru-put problems

- Standard capacity hoppers range from 5 to 600 lbs
- Dries less than a full hopper
- Dries material to the bottom of the slide gate
- Easy-to-clean diffuser cone directs air/material flow
- Hoppers include: Slide gate, Blank mounting adapter, Access door (RH60 and over), Insulation
- Laser-cut access doors provide a smooth, tight fit and eliminate troublesome gaskets
- RH400 & RH600 hoppers include full length sight glass and Bunting™ no-spill slide gate



DRAWER MAGNETS

- Ceramic 5
- Stainless Steel Magnetic Tubes, located on 2" Vertical and Horizontal Centers
- Cast Ductile Iron Housings
- 3/8" Polycarbonate Drawer Front
- Leak Proof Gasket



STORAGE BINS

Ideal for storage and transfer of material from grinders, surge bins, bags, drums or gaylords

- Mobile
- Self-Emptying
- Durable one piece reinforced lid suitable for mounting equipment
- Lightweight
- Stackable
- Stainless Steel Slidegate
- Vacuum Wand Access Tube
- Heavy-Duty Welded Steel Frame
- Forklift Channel
- Locking Casters



LOADERS, TILTERS AND DUMPERS

Loaders – designed to feed pellets, granules, and free flowing powders into an overhead hopper or storage vessel. Built with a variety of auger sizes and types and can deliver from 10 to 500 cu. ft. of material/hour.

- Direct Gear Drive for lower maintenance
- 20 cu. ft Hopper Capacity
- Quick Disconnect auger for easy cleaning
- 45° or 60° auger slope



Tilters – designed to assist in the vacuum unloading of gaylord containers. The automatic tilting feature allows complete removal of material from the container. The adjustable regulator permits setting initial lift at any desired weight.

- 1" Pillow block pivot bearings
- Double convoluted industrial air bag – set up so bag cannot get overstressed!
- Automatic or Manual Tilt Action
- Flow Control to adjust operating speed

Box Dumpers – built to handle the tough unloading jobs! Standard unit capacity is 2,500#, larger capacities are available. The box retainer is adjustable from 32" to 48", plus there's also a permanent safety retainer bar! Push button controls permit stopping the unit at any point in the cycle for added control and safety.

- 52" Wide Bucket available!
- Custom width bodies – for large or awkward containers, Increased lift capacity
- Custom discharge chutes

...AND MUCH MORE

Thousands of auxiliary items available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost auxiliary products, including conveyors, water and oil filters, hydraulic pumps, chillers, cooling towers, end-of-arm tooling, and much, much more.



Plumbing Products

ALUMINUM MANIFOLDS

Aluminum Manifolds offer many advantages over welded steel or pipe manifolds. These manifolds have no welds or seams of any kind and cannot rust, they will offer many years of trouble-free service. The heavy wall extrusion will withstand extreme abuse and the round center hole permits easy cleaning. We will custom make manifolds to your dimensions in just a few days.

- Rated to: 1000 PSI – Air; 3000 PSI – Hydraulic
- Heavy wall extruded 6061 aluminum
- No welds! No rust!
- Very low cost
- Easy to clean



FLOW REGULATORS

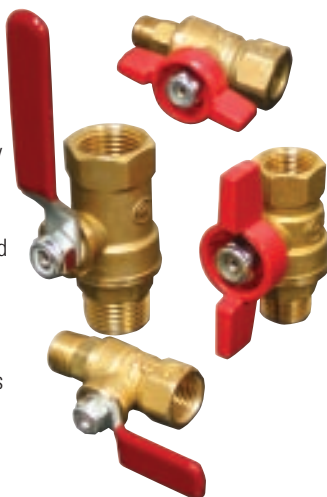
Provide a unique, leak-free, singlepoint manual flow control. Incorporates the proven mechanical flowmeter and integral needle valve in a compact design. Very few moving parts improve reliability and leak-free operation. Brass valve, EPDM o-rings, and polysulfone viewing window are compatible with most process liquids. Brass quick-connect fittings are available.

- Compact size works well in restricted-space locations.
- Rugged construction gives years of dependable service.
- 240°F (115°C) Temperature Rating allows installation into a wide range of applications.
- Optional Temperature Gauge displays additional process information.
- No Mounting Restrictions ease installation in any position without extra brackets or hardware.



FORGED BRASS BALL VALVES

- Super-port BBV-MF is a full port 2-piece ball valve with features only found on more expensive valves.
- Extra heavy-duty bottom-loaded stem with a teflon thrust washer and Viton O-ring.
- Teflon® seats, thrust washer and stem packing
- Self cleaning chromium plated brass ball for maximum durability



HYDRAULIC COUPLERS

Double side shut off poppet type in Steel, Stainless Steel and Brass. Available with Buna-N or Viton seals.

Hardened nipples & sleeves and solid barstock construction assure a long service life providing maximum resistance to hydraulic shock and abuse common in industrial applications.

- Steel Body – Body, sleeve & valve are zinc plated steel.
- 303 Stainless Steel – Body, sleeves, valves, retaining rings, springs and locking balls are stainless.
- Brass Body – Body, sleeve and valves are brass.



PVC AIR & WATER HOSE

- Clear, red or blue
- Tough yet lightweight
- Very flexible
- Highly abrasion resistant
- Food grade PVC
- Resistant to most chemicals
- Temperature range: -20° to 150°F (-5° to 65°C)



...AND MUCH MORE

Thousands of plumbing items available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost plumbing products, including brass and steel hydraulic pipe, high-flow cascade assemblies, pipe elbows and fittings, hose assemblies, and much, much more.

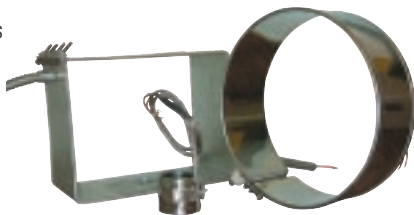


Heaters and Sensors

MICA INSULATED HEATERBANDS

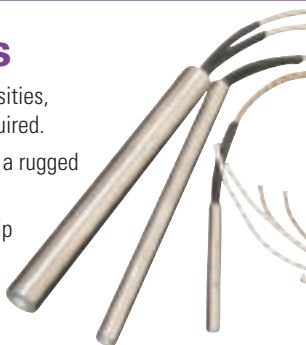
Time tested materials & manufacturing techniques make this heater a proven, economical, reliable performer.

- 1 and 2 piece bands
- Fiberglass leads, Stainless leads and Post terminals
- 120 and 240 volt styles
- Uniform heat, high watt density
- Custom bands available in rush and standard time options



CARTRIDGE HEATERS

- A superior for use where high watt densities, high temperatures and long life are required.
- Widely used throughout the industry as a rugged dependable heat source.
- High quality materials and craftsmanship



THERMOCOUPLES

Variable immersion depth of 1 1/4" to 1 3/4" with a tip length of 2 1/2". These will accommodate most requirements in either a straight or 90° bend. Off the shelf delivery and a very low price make our standard thermocouples just what you need. Also available in K & RTD types.



NON-CONTACT IR THERMOMETERS

Compact thermometer with wide temperature range

- Measures temperature from -58 to 1000°F with 0.1° resolution up to 199.9°
- Built-in laser pointer identifies target area
- 2000 counts backlit display
- Overrange indicator
- Automatic Data Hold when trigger is released
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto power off
- Complete with 9V battery



ELECTRONIC COMPONENT REPAIR SERVICE

Quick repairs normally less than 10 working days. Cost savings. Total reliability, all repairs are fully load tested. One full year warranty on both printed circuit board repairs as well as on complete control repairs. We repair ALL types of industrial electronic controls: temperature controllers, programmable controllers, timers and counters, instrument and machine tool controls, AC and DC drives, 1000s of new models added.

- Usually less than 1/2 the cost of a new controller
- We repair all types of controllers
- Fast, low cost, warrantied repair by qualified specialists
- Over 60,000 schematics in our library



DIN CONTROLLERS

Single channel controllers include a universal sensor input with up to three outputs that can be programmed for heat or cool temperature control, or to operate as process or deviation alarms.

- Infrared Communications
- Up to three outputs
- Ramp to set point
- Dual displays
- Variable Burst
Fire – Prolongs heater life



...AND MUCH MORE

Thousands of heating and sensor items available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost heating and sensing products, including variable transformers, modular temperature controllers, wire and wire fittings, contactors, relays, and much, much more.



Cutter and Hand Tools

CERAMIC KNIFE

Heavy duty handle with Ceramix™ Q10 blade. Adjust the cutting angle between the blade and the material for best results and to prevent scratches. Flip blade for 2 types of jobs. OSHA Friendly! Even though ceramic blades remain sharp FAR longer than metal blades, it's practically impossible to cut yourself with them!



Unique Dual Blade Design!

- Cleans up to 6mm (0.236") sheets
- Cleans up to 4mm (0.157") sheets
- Cleans up surfaces

ELECTRIC NIPPERS

Just plug them in and they're ready for continuous use. Well balanced and comfortable to hold for many hand sizes.

- Weight 290g AC Power Source (110v)
- Single stroke or continuous cut
- High speed and high power
- The blade opening and speed can be freely adjusted in the range of 2-5 times per second.
- A control circuit is built in the body. Transformers or control box is not needed.



BRONZE SPRUE PULLERS

- Strongest forged bronze alloy -Ampco 45; Alloy 630; AMS 4640
- Non Scratch-ideal for removing sprues and parts without damaging mold surfaces.
- Non Spark -For work around fuels, solvents, and other flammable chemicals.
- Non Magnetic -For work around MRIs and magnets.
- Corrosion Resistant -For work outdoors -marine use and corrosive environs.
- Thermal insulating, soft touch foam grip -To reduce fatigue and CTDs.
- Longer double ergonomic handles -For high leverage, less operator force.
- Easily re-sharpened.



MOLD HAMMERS

Mold Hammer with Interchangeable Tips

- Tips are removable and interchangeable
- Will not mar metal or plated finish
- Tips available in Medium or Hard Vinyl, Tough Nylon, Brass & Steel
- Non-sparking
- Non-magnetic



GATECUTTERS

- 5 Styles/Sizes Available
- Low Cost High Quality
- Slim Blade Design
- Resharpen Well
- Smooth Action
- Spring is steel coil
- Very Sharp
- Smooth Flat Cut
- Better than the Competition!



...AND MUCH MORE

Thousands of cutters and hand tools available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost cutters and hand tools, including brass mold tools, sprue punches, nozzle wrenches, deburring tools, barrel brushes, hammers, blowguns, flashlights, and much, much more.



Releases and Lubricants

WD-40

■ Displaces Moisture.

Formulated for ultra-high surface attraction to metal. It completely covers surfaces, including microscopic irregularities, even in the presence of moisture. A non-conductor of electricity and quickly eliminates moisture-induced short circuits.

■ Penetrates.

Ultra-high surface attraction results in a super penetrating action that loosens rust-to-metal bonds and frees stuck, frozen, or rusted metal parts.

■ Protects.

Deposits corrosion-resistant ingredients over the entire surface area, including microscopic irregularities. This protective barrier shields against moisture and other corrosive elements.

■ Cleans.

Ultra-high surface attraction enables it to get under dirt, grime, caked grease, and oil to clean the surface at WD – the same time it forms a corrosion resistant barrier.

■ Lubricates.

Ultra-high surface attraction assures the lubricating ingredients will be widely dispersed and tenaciously held to all moving parts.



SLIDE NEXGEN METAL & MOLD CLEANER

Direct alternative to trichloroethylene and methylene chloride. Food approved. Leaves no oily residue. No global warming compounds. Not a hazardous air pollutant. Non-corrosive and not sara reportable. Biodegradable and rinses with water. Meets tough health, safety and environmental regulations. High solvency for resins, polymers and dies. Formulated purely from citrus and vegetable products. It meets or exceeds the toughest health and safety issues, without sacrificing RAW CLEANING POWER. Biodegradable, it easily rinses away with water and leaves no residue.

- General cleaning and wiping
- Oil spill clean-up
- Ink, tar and adhesive removal
- Paint and Graffiti removal
- Removing silicone and lithium grease
- Degreasing



SLIDE ECONOSPRAY 6 SILICONE MOLD RELEASE

Works efficiently on both cold and hot molds. It is CFC-free and free of chlorinated solvents. Econo-Spray® Silicone imparts a smooth, dry film, which is FDA approved and USDA approved for food machinery. Operating temps: 35°F – 600°F

- No ozone depleting chemicals
- Non-chlorinated
- No methylene chloride
- No Chlorofluorocarbons (CFCs)
- Safe on solvent-sensitive plastics



COPPER & NICKEL ANTI-SEIZE

- Will Not Bleed, Separate or Harden
- Choose Copper or Nickel Base
- Copper Rated To 2000°F.
- Nickel Rated To 2800°F.
- Eliminates Galling & Seizing
- Suggested For: Nozzles, Screw Tips, Cylinder Bolts, Mold Clamps, Etc.



SLIDE SUPERGREASE

Colorless. Odorless. Non-toxic. FDA dielectric. Contains Teflon®* Will not freeze, melt, gum up. Compatible with other lubricants No silicones. Will not wash out. USDA listed H1. Repels water. Will not separate, run or fall out. Thixotropic properties provide excellent mechanical stability when sudden temperature changes occur. Exceptional load-bearing properties. Clear, clean, non-yellowing grease. For injection molds, mold assemblies, especially medical and food grade plastic parts. Prevents corrosion. Oper. temps: -65° to +650°F

*Trademark of DuPont Chemical Co.



...AND MUCH MORE

Thousands of auxiliary items available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost releases /lubricants /cleaners, including rtv silicone, GoJo® Hand cleaners, Boltlockers, Metal Polish, Teflon® thread sealant (both liquid and tape), and much, much more.



Machine Parts

SCREW TIPS

Top quality general purpose 3-piece Screw Tip of the Free-Flow design. Suitable for most molding applications including moderately abrasive or filled materials. Much tougher and longer lasting than standard OEM or H-13 Screw Tip. Manufactured from a combination of steels that provide wear-resistance in components subject to wear plus toughness and torque resistance in components subject to these stresses. Through hardened and Nitrided for long service.



NOZZLE BODIES

- Made of High Quality 4140 Tool Steel
- Holds Removable Tips
- Extension Tips and Dispersion Tips
- Externally Heated



MACHINE MOUNTS

UNISORB Quantum IM Mounts provide optimum leveling and alignment in minutes, without anchoring either the machine or mounts to the floor. Designed especially for injection molding and die casting machines, UNISORB Quantum IM Mounts dampen both vertical and horizontal impacts found in reciprocating machines. UNISORB Quantum IM Mounts meet applicable OSHA requirements.

- Increased equipment life
- Simplified machine installation
- Fast, accurate alignment
- Reduced shock and vibration
- Elimination of anchor bolts
- Uneven floors accommodated
- Machine "walking" prevented



MACHINED MOLD CLAMPS

Machined Mold Clamps fit $1\frac{15}{32}$ " $2\frac{29}{32}$ " or $1\frac{3}{8}$ " mold flanges and can be inverted for other size flanges.

- Low Cost
- Nice Finish
- Machined Accuracy
- Versatile Fit & Design



SHUTOFF NOZZLES

EXTERNAL SPRING – external spring activated shut-off pin.

SHUT-OFF PIN – externally activated shut-off pin permits unrestricted material flow during injection.

REPLACEABLE TIP – special hardened tool steel tip can be changed in seconds.

AUTOMATIC OPERATION – operation is fully automatic and mechanical

- Completely mechanical, automatic operation
- No internal springs
- Eliminates cold slugs
- Controllable back flow during injection
- Reduces flashing
- Precise pressure control during cure
- Positive shut-off prevents drooling



...AND MUCH MORE

Thousands of machine parts available beyond these popular featured products. D-M-E Molding Supplies offers a wide variety of other high-quality, low-cost machine parts, including mixing nozzles, locating rings, sprue bushings, socket head cap screws, hoist rings, and much, much more.



D-M-E: Your Complete Mold Technologies Provider



Every step of the way

**Check Out All of the D-M-E Mold Technology Catalogs
And You'll See Why We're an Essential Resource to Thousands of Customers Worldwide!**



CATALOG: 308 PAGES

D-M-E Mold Bases & Plates

Choose from the world's widest selection of mold bases from uniquely featured, off-the-shelf solutions to full-featured, custom-configured offerings. An array of standard and specially machined mold plate sizes gives you unlimited options.



CATALOG: 156 PAGES

MUD Quick-Change Systems From D-M-E

Reduce downtime by as much as 75 percent with an innovative approach to fast production changeovers. Master Unit Die is the leader in quick-change systems and the MUD Catalog offers many systems that will maximize your production volume.



CATALOG: 316 PAGES

D-M-E Mold Components

With the largest selection of mold components available around the globe, the D-M-E Mold Components Catalog has the products that will help you meet the unprecedented demands you face for speed, cost reduction and performance.



CATALOG: 76 PAGES

D-M-E Control Systems

Powerful. Flexible. Affordable. That's what molders want from today's generation of hot runner, valve gate, and process controls, and D-M-E delivers with a broad line of controllers sure to fit the most demanding application.



CATALOG: 174 PAGES

D-M-E Hot Runner Systems

Moldmakers, molders and mold designers worldwide look to the D-M-E Hot Runner Systems Catalog for essential hot runner solutions. From best-in-class components to complete, fully-functioning hot half systems, D-M-E has the broadest range of hot runner products and services.



CATALOG: 68 PAGES

D-M-E Technical Services

From powerful, online resources available 24/7, to our team of trained, experienced experts committed to helping customers achieve maximum productivity, reliable operation, and better performance, D-M-E's goal is simple: to be an essential resource for your molding challenges every step of the way.

D-M-E, 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 hot runner systems, control systems, mold bases, 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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