Three Ways to Increase Your Productivity

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

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

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

Unit Die Replacement Parts ........................................ page 19
Replacement Sprue Spreaders (previous style) .............. page 20
Sprue and Runner Spreaders and Bushings (for Zinc) ................................................................. pages 20-28
Die Clamps..................................................................... page 29

Information available on
D-M-E Standard Unit Die Holders and Replacement Units
To assist designers in saving time on laying out cavities and cores within D-M-E Standard Unit Dies, CAD Data can be downloaded from www.dme.net. The general dimensions of D-M-E’s complete line of Standard Unit Dies for zinc and aluminum are shown on page 19.
Die Cast Die Assemblies

For Zinc and Aluminum Die Casting

The economy of using standard mold assemblies for zinc and aluminum die casting has been well established over the years. Standard “A” and “B” Series Mold Bases are both widely used. For zinc die casting, a D-M-E Standard Water-cooled Sprue Spreader and Bushing are installed in place of the sprue bushing and sprue puller pin used in plastics molds. For aluminum, a shot-sleeve hole is bored to customer specifications.

ALUMINUM DIE CAST DIES
When ordering, please specify:
1. Item Number of “A” or “B” Series Mold Base.
2. No. 2 or No. 3 Steel (No. 5 Steel available on special order).
Provide a dimensioned drawing with diameter and location of shot-sleeve hole. Prices will be quoted per your drawing.

ZINC DIE CAST DIES
When ordering, please specify:
1. Item Number of “A” or “B” Series Mold Base.
2. No. 2 or No. 3 Steel (No. 5 Steel available on special order).
3. Item numbers of Spreader and Bushing required.
4. If Spreader location is off-center, please supply a dimensioned drawing.
See pages 21-28 for Spreaders and Bushings. Installation costs for Spreader and Bushing will be quoted per your drawing or specifications.

FOR ZINC OR ALUMINUM DIES
Prices can also be quoted per your drawing for the following additional work:
- cavity and core insert pockets
- core slide pockets
- shot plugs (furnish and install)
- runners and kicker pads
- knock-out holes
- ejector pin installation
- pipe clearance holes
- water lines and eye bolt holes
- special clamp slots
In addition to the use of "A" and "B" Series Mold Bases for die casting as outlined on the previous page, die cast die assemblies can be constructed using D-M-E Standard Components. The drawing below illustrates a "two-plate" die cast die designed entirely with standard components. Complete specifications and prices for the components can be found on the pages listed below.

ADDITIONAL DIE CAST DIE COMPONENTS FROM D-M-E

- Cascade Water Junctions ........................................................... 41-42
- Cooling Items .............................................................................. 32-44
- Core Pins ..................................................................................... 76-77, 88
- Die Clamps ................................................................................... 29
- Die Springs .................................................................................... 104-107
- Dowel Pins (solid and tubular) ................................................. 101-103
- Ejector Pins ................................................................................. 67-71, 80-83, 90
- Ejector Sleeves ........................................................................... 72-73, 84-85, 91
- Ejector Blades .............................................................................. 74-75, 86-87, 92
- Guided Ejection System ............................................................... 51-52
- Guide Pins and Bushings .............................................................. 45-50, 55-65
- Hoist Rings .................................................................................... 109-111
- Jiffy-Tite and Jiffy-Matic Connectors ......................................... 33-37
- Socket Head Cap Screws ............................................................. 95-96
- Support Pillars and Stop Pins ...................................................... 53-54, 66
For Zinc and Aluminum Die Casting

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

20-MINUTE DIE CHANGEOVERS

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

FOUR TYPES OF HOLDERS

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

STANDARD REPLACEMENT UNITS

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

D-M-E NO. 2 STEEL

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

D-M-E NO. 3 STEEL

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

D-M-E NO. 5 STEEL

A thermal-shock resistant, hotwork die steel (H-13 type). Supplied fully annealed, approx. 200 Bhn (93 HRB), for easy machinability, it can be subsequently heat treated to the desired hardness with a minimum of deformation. Ideal for aluminum and most long run die casting applications. D-M-E No. 5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest Number 01-80-01 D.

REPLACEMENT UNITS IN ANY STEEL OR HARDNESS REQUIRED ARE AVAILABLE ON SPECIAL ORDER
For Zinc and Aluminum Die Casting

Pre-Engineered Design Features

- **Maximum Cavity Area for Greater Range of Jobs**
  Three sides of Replacement Units are open for placement of core slides or water lines.

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

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

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

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

  On the smaller D-M-E Single and Double Unit Die Holders a specially developed “space-saver” design with heavy-duty socket screws makes equally fast die changeovers possible.

- **Designed for Zinc or Aluminum Applications**
  Available with Water-cooled Sprue Spreader and Bushing installed for zinc or with shot-sleeve hole bored to specifications for aluminum die casting.
For Zinc and Aluminum Die Casting
Designed for smaller die casting machines (50-150 ton)

DCS-108 SINGLE UNIT DIE HOLDERS
CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

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

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

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

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

VIEW Y-Y

U.S. Pat. No. 2956321
Can. Pat. No. 620895

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-108-A</td>
<td>300</td>
<td>8.000 x 9.875</td>
</tr>
<tr>
<td>DCS-108-Z</td>
<td>300</td>
<td>8.000 x 9.875</td>
</tr>
</tbody>
</table>

WHEN ORDERING FROM PAGES 11-12, PLEASE SPECIFY:
1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment

U.S. 800-626-6653 • Canada 800-387-6600 • www.dme.net
### Single Unit Die Holders

**For Zinc and Aluminum Die Casting**

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>N</th>
<th>C</th>
<th>S</th>
<th>X</th>
<th>A</th>
<th>B</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-1012-A</td>
<td>11.875</td>
<td>17.875</td>
<td>15.125</td>
<td>6.000</td>
<td>5.125</td>
<td>2.0625</td>
<td>8.000</td>
<td>3.375</td>
<td>3.375</td>
<td>535</td>
<td>9.875 x 11.875</td>
</tr>
<tr>
<td>DCS-1012-Z</td>
<td>11.875</td>
<td>17.875</td>
<td>15.125</td>
<td>6.000</td>
<td>5.125</td>
<td>2.0625</td>
<td>8.000</td>
<td>3.375</td>
<td>3.375</td>
<td>535</td>
<td>9.875 x 11.875</td>
</tr>
</tbody>
</table>

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

U.S. 800-626-6653 • Canada 800-387-6600 • www.dme.net
Die Cast

Double Unit Die Holders

For Zinc and Aluminum Die Casting
Designed for smaller die casting machines (50-150 ton)

DC -108 DOUBLE UNIT DIE HOLDERS
CENTER SECTION
No. 5 Steel (H-13 type), heat treated to 42-46 Rockwell C

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

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

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

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

U.S. Pat. No. 2956321
Can. Pat. No. 620895

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-108-A</td>
<td>340</td>
<td>8.000 x 9.875</td>
</tr>
<tr>
<td>DC-108-Z</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WHEN ORDERING FROM PAGES 13-14, PLEASE SPECIFY:
1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment

U.S. 800-626-6653 • Canada 800-387-6600 • www.dme.net
### DC-1012, DC-1215 and DC-1518 DOUBLE UNIT DIE HOLDERS

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

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

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

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

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>N</th>
<th>C</th>
<th>S</th>
<th>X</th>
<th>A</th>
<th>B</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-1012-A</td>
<td>11.875</td>
<td>15.125</td>
<td>6.000</td>
<td>5.125</td>
<td>2.0625</td>
<td>5.3125</td>
<td>3.375</td>
<td>3.375</td>
<td>645</td>
<td>9.875 x 11.875</td>
<td></td>
</tr>
<tr>
<td>DC-1012-Z</td>
<td>11.875</td>
<td>15.125</td>
<td>6.000</td>
<td>5.125</td>
<td>2.0625</td>
<td>5.3125</td>
<td>3.375</td>
<td>3.375</td>
<td>645</td>
<td>9.875 x 11.875</td>
<td></td>
</tr>
<tr>
<td>DC-1518-A</td>
<td>17.875</td>
<td>18.125</td>
<td>7.000</td>
<td>5.875</td>
<td>2.3125</td>
<td>6.000</td>
<td>4.375</td>
<td>4.375</td>
<td>1554</td>
<td>14.875 x 17.875</td>
<td></td>
</tr>
<tr>
<td>DC-1518-Z</td>
<td>17.875</td>
<td>18.125</td>
<td>7.000</td>
<td>5.875</td>
<td>2.3125</td>
<td>6.000</td>
<td>4.375</td>
<td>4.375</td>
<td>1554</td>
<td>14.875 x 17.875</td>
<td></td>
</tr>
</tbody>
</table>

*Item numbers shown are for unit holders only and do not include the replacement units. See page 17. For other replacement parts, see page 19.*
For Zinc and Aluminum Die Casting

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

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

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

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

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>N</th>
<th>C</th>
<th>S</th>
<th>X</th>
<th>A</th>
<th>B</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
</table>

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

WHEN ORDERING FROM PAGES 15-16, PLEASE SPECIFY:
1. Quantity and Item Number
2. Bushing and Spreader Item Numbers (for Zinc) See pages 20-28
3. Shot-Sleeve Diameter and Location (for Aluminum)
4. Method of Shipment
Double Heavy-Duty Unit Die Holders

For Zinc and Aluminum Die Casting

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

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

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

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

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>W</th>
<th>L</th>
<th>H</th>
<th>N</th>
<th>C</th>
<th>S</th>
<th>X</th>
<th>A</th>
<th>B</th>
<th>NET WEIGHT</th>
<th>REPLACEMENT UNIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-1518-A-HD</td>
<td>17.875</td>
<td>44.750</td>
<td>24.625</td>
<td>9.500</td>
<td>7.625</td>
<td>2.8125</td>
<td>6.000</td>
<td>5.875</td>
<td>5.875</td>
<td>2635</td>
<td>14.875 x 17.875</td>
</tr>
<tr>
<td>DC-1518-Z-HD</td>
<td>17.875</td>
<td>44.750</td>
<td>24.625</td>
<td>9.500</td>
<td>7.625</td>
<td>2.8125</td>
<td>6.000</td>
<td>5.875</td>
<td>5.875</td>
<td>2635</td>
<td>14.875 x 17.875</td>
</tr>
</tbody>
</table>

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

For Zinc and Aluminum Unit Dies

STANDARD REPLACEMENT UNITS ARE AVAILABLE IN:

D-M-E No. 2 Steel (AISI 4130 type), pre-heat treated to 269-321 Bhn
D-M-E No. 3 Steel (P-20 type), pre-heat treated to 277-321 Bhn
D-M-E No. 5 Steel (H-13 type), annealed – approximately 200 Bhn

Thickness of “A” and “B” Plates are finished .040” oversize (.020” per side) to permit finish grinding after heat treatment.

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>D</th>
<th>W</th>
<th>A</th>
<th>B</th>
<th>M</th>
<th>NET WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-108-D</td>
<td>8.000</td>
<td>9.875</td>
<td>2.875</td>
<td>2.875</td>
<td>6.875</td>
<td>154</td>
</tr>
<tr>
<td>U-1012-D</td>
<td>9.875</td>
<td>11.875</td>
<td>3.375</td>
<td>3.375</td>
<td>8.375</td>
<td>264</td>
</tr>
<tr>
<td>U-1215-D</td>
<td>11.875</td>
<td>14.875</td>
<td>3.875</td>
<td>3.875</td>
<td>11.000</td>
<td>462</td>
</tr>
<tr>
<td>U-1518-D</td>
<td>14.875</td>
<td>17.875</td>
<td>4.375</td>
<td>4.375</td>
<td>13.000</td>
<td>765</td>
</tr>
</tbody>
</table>

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

**STANDARD HEAVY-DUTY REPLACEMENT UNITS ARE AVAILABLE IN:**

D-M-E No. 2 Steel (AISI 4130 type), pre-heat treated to 271-321 Bhn (28-34 HRC)
D-M-E No. 3 Steel (P-20 type), pre-heat treated to 271-321 Bhn (28-34 HRC)
D-M-E No. 5 Steel (H-13 type), annealed – approximately 200 Bhn
Thickness of “A” and “B” Plates are finished 0.040” oversize (.020” per side) to permit finish grinding after heat treatment.
D-M-E No. 5 Steel meets or exceeds the acceptance criteria established by the NADCA as detailed in Technical Digest Number 01-80-01 D.

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>D</th>
<th>W</th>
<th>A</th>
<th>B</th>
<th>M</th>
<th>NET WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-1518-HD</td>
<td>14.875</td>
<td>17.875</td>
<td>5.875</td>
<td>5.875</td>
<td>12.000</td>
<td>990</td>
</tr>
</tbody>
</table>

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

U.S. Pat. No. 2956321
Can. Pat. No. 620895
Information available on D-M-E Standard Unit Die Holders and Replacement Units

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

General Dimensions and Item Numbers of D-M-E Standard Unit Dies

<table>
<thead>
<tr>
<th>REPLACEMENT UNIT SIZE</th>
<th>DOUBLE UNIT DIE HOLDERS</th>
<th>SINGLE UNIT DIE HOLDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM NUMBER</td>
<td>D</td>
<td>W</td>
</tr>
<tr>
<td>U-1012-D</td>
<td>9.875</td>
<td>11.875</td>
</tr>
<tr>
<td>U-1215-D</td>
<td>11.875</td>
<td>14.875</td>
</tr>
<tr>
<td>U-1215-HD</td>
<td>11.875</td>
<td>14.875</td>
</tr>
</tbody>
</table>

Replacement Parts for Unit Holders & Replacement Units

| REPLACEMENT PARTS FOR UNIT HOLDERS | USED WITH UNIT HOLDERS |
| ITEM NUMBER | DESCRIPTION | DC-1012 and DC-1012 | DCS-1215 and DC-1215 | D and DCS-1215-HD | DC and DCS-1518-HD |
| DCR001 | WEDGE CLAMP WITH LATCH (UPPER) | DCS-1012 and DC-1012 | DCS-1215 and DC-1215 | D and DCS-1215-HD | DC and DCS-1518-HD |
| DCR002 | WEDGE CLAMP WITH LATCH (LOWER, LEFT) |
| DCR003 | WEDGE CLAMP WITH LATCH (LOWER, RIGHT) |
| DCR005 | WEDGE CLAMP WITH LATCH (UPPER) |
| DCR006 | WEDGE CLAMP WITH LATCH (LOWER) |
| DCR008 | WEDGE CLAMP WITH LATCH (UPPER) |
| DCR009 | WEDGE CLAMP WITH LATCH (LOWER) |
| DCR011 | WEDGE CLAMP |
| DCR013 | WEDGE CLAMP |

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

| REPLACEMENT PARTS FOR REPLACEMENT UNITS | USED WITH REPLACEMENT UNIT | NET WEIGHT |
| ITEM NUMBER | DESCRIPTION | DC-1012 and DC-1012 | DCS-1215 and DC-1215 | D and DCS-1215-HD | DC and DCS-1518-HD |
| DCR014 | WEDGE CLAMP |

For other replacement items, contact D-M-E.
Die Cast Sprue Spreaders

For Replacement Purposes in Existing Zinc Die Cast Dies (Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)

**STRAIGHT SPRUE SPREADERS**
(Cascade and Baffle Types)

**TAPERED SPRUE SPREADERS**
(Cascade and Baffle Types)

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>SIZE/TYPE (STYLE)</th>
<th>Ø D</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-10</td>
<td>Small/Baffle</td>
<td>1.45</td>
<td>1.25</td>
<td>1.50</td>
</tr>
<tr>
<td>DC-15</td>
<td>Small/Baffle</td>
<td>1.50</td>
<td>1.25</td>
<td>1.50</td>
</tr>
<tr>
<td>DC-18</td>
<td>Small/Cascade</td>
<td>1.50</td>
<td>1.25</td>
<td>1.50</td>
</tr>
<tr>
<td>DC-20</td>
<td>Medium/Baffle</td>
<td>1.68</td>
<td>1.37</td>
<td>2.25</td>
</tr>
<tr>
<td>DC-25</td>
<td>Medium/Baffle</td>
<td>1.87</td>
<td>1.37</td>
<td>2.25</td>
</tr>
<tr>
<td>DC-28</td>
<td>Medium/Cascade</td>
<td>1.87</td>
<td>1.37</td>
<td>2.25</td>
</tr>
<tr>
<td>DC-110</td>
<td>Large/Baffle (Short)</td>
<td>2.06</td>
<td>1.37</td>
<td>2.19</td>
</tr>
<tr>
<td>DC-113</td>
<td>Large/Cascade (Short)</td>
<td>2.06</td>
<td>1.37</td>
<td>2.19</td>
</tr>
<tr>
<td>DC-115</td>
<td>Large/Baffle (Short)</td>
<td>2.12</td>
<td>1.37</td>
<td>2.19</td>
</tr>
<tr>
<td>DC-118</td>
<td>Large/Cascade (Short)</td>
<td>2.12</td>
<td>1.37</td>
<td>2.19</td>
</tr>
<tr>
<td>DC-210</td>
<td>Large/Baffle (Long)</td>
<td>2.06</td>
<td>1.37</td>
<td>3.69</td>
</tr>
<tr>
<td>DC-213</td>
<td>Large/Cascade (Long)</td>
<td>2.06</td>
<td>1.37</td>
<td>3.69</td>
</tr>
<tr>
<td>DC-215</td>
<td>Large/Baffle (Long)</td>
<td>2.12</td>
<td>1.37</td>
<td>3.69</td>
</tr>
<tr>
<td>DC-218</td>
<td>Large/Cascade (Long)</td>
<td>2.12</td>
<td>1.37</td>
<td>3.69</td>
</tr>
</tbody>
</table>

FOR MATING BUSHINGS, SEE PAGES 21-24
Exclusively for Zinc Die Casting
(Not for use with aluminum, magnesium, brass, lead or other non-zinc materials)
MORE QUALITY PARTS PER HOUR!

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

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

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

Precision made of heat treated AISI H-13 steel, D-M-E Sprue Spreaders are available in three sizes (small, medium and large) and two styles (short and long). All Sprue Spreaders are designed to provide two types of cooling, no longer requiring separate body styles. All spreaders are supplied with baffles installed for baffle type cooling (FIGURE 1). If cascade type cooling is preferred, simply replace the baffle with a cascade water junction** (FIGURE 2). Either way, the spreader’s uniform center cooling design provides ample water flow for faster cycles.

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

**See Cascade Water Junctions on page 42.

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

**Sprue Spreaders (Small)**

- **SECTION "X-X" SHORT STYLE**
- **SECTION "X-X" LONG STYLE**

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

**Sprue Bushings (Small)**

- **SECTION "X-X" SHORT STYLE**
- **SECTION "X-X" LONG STYLE**

**SPRUE SPREADERS (SMALL)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STYLE</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-30</td>
<td>Short</td>
<td>DC-31, DC-32</td>
</tr>
<tr>
<td>DC-40</td>
<td>Long</td>
<td>DC-41, DC-42</td>
</tr>
</tbody>
</table>

**SPRUE BUSHINGS (SMALL - SHORT STYLE)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-33</td>
<td>.75</td>
<td>DC-3</td>
</tr>
<tr>
<td>DC-36</td>
<td>1.00</td>
<td>DC-5</td>
</tr>
<tr>
<td>DC-37</td>
<td>1.515</td>
<td>DC-7</td>
</tr>
</tbody>
</table>

**SPRUE BUSHINGS (SMALL - LONG STYLE)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-44</td>
<td>.75</td>
<td>DC-4</td>
</tr>
<tr>
<td>DC-46</td>
<td>1.00</td>
<td>DC-6</td>
</tr>
<tr>
<td>DC-48</td>
<td>1.515</td>
<td>DC-8</td>
</tr>
</tbody>
</table>

**CROSS SECTIONAL AREA = .330 in.²**

U.S. 800-626-6653 • Canada 800-387-6600 • www.dme.net
Die Cast

Constant Area Sprue Spreaders and Sprue Bushings (Medium Size)

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

Sprue Spreaders (Medium)

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

Sprue Bushings (Medium)

<table>
<thead>
<tr>
<th>SPRUE SPREADERS (MEDIUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM NUMBER</td>
</tr>
<tr>
<td>DC-50</td>
</tr>
<tr>
<td>DC-60</td>
</tr>
</tbody>
</table>

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

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

CROSS SECTIONAL AREA = .450 in.²

VIEW "X-X"
Die Cast

Constant Area Sprue Spreaders and Sprue Bushings (Large Size)

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

CROSS SECTIONAL AREA = .780 in.²

Sprue Spreaders (Large)

Exclusively for Zinc Die Casting

Die Cast | Constant Area Sprue Spreaders and Sprue Bushings (Large Size)

**Sprue Spreaders (Large)**

**Sprue Bushings (Large)**

**NOTES:**

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

**Sprue Spreaders (Large)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STYLE</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-310</td>
<td>Short</td>
<td>DC-315, DC-318</td>
</tr>
<tr>
<td>DC-410</td>
<td>Long</td>
<td>DC-415, DC-418</td>
</tr>
</tbody>
</table>

**Sprue Bushings (Large - Short Style)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-300</td>
<td>1.000</td>
<td>DC-100</td>
</tr>
<tr>
<td>DC-301</td>
<td>1.250</td>
<td>DC-101</td>
</tr>
<tr>
<td>DC-302</td>
<td>1.515</td>
<td>DC-102</td>
</tr>
<tr>
<td>DC-303</td>
<td>1.750</td>
<td>DC-103</td>
</tr>
<tr>
<td>DC-304</td>
<td>1.875</td>
<td>DC-104</td>
</tr>
</tbody>
</table>

**Sprue Bushings (Large - Long Style)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
<th>REPLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-400</td>
<td>1.000</td>
<td>DC-200</td>
</tr>
<tr>
<td>DC-401</td>
<td>1.250</td>
<td>DC-201</td>
</tr>
<tr>
<td>DC-402</td>
<td>1.515</td>
<td>DC-202</td>
</tr>
<tr>
<td>DC-403</td>
<td>1.750</td>
<td>DC-203</td>
</tr>
<tr>
<td>DC-404</td>
<td>1.875</td>
<td>DC-204</td>
</tr>
</tbody>
</table>

U.S. 800-626-6653  •  Canada 800-387-6600  •  www.dme.net
Runner Spreaders and Bushings

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

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

TYPICAL APPLICATIONS

**RUNNER SPREADERS**

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

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

Precision made of AISI H-13 steel, D-M-E Runner Spreaders are available in three sizes (small, medium and large) and two styles (short and long). All Runner Spreaders are designed to provide two types of cooling, without the need for separate body styles. They are supplied with baffles installed for baffle type cooling (FIGURE 1). If cascade type cooling is preferred, simply replace the baffle with a cascade water junction* (FIGURE 2). Either way, the Spreader’s uniform center cooling design provides ample water flow for faster cycles.

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

**See Cascade Water Junctions on page 42.

**RUNNER BUSHINGS**

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

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

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

### Runner Spreaders (Small)

**ITEM NUMBER** | **STYLE**
--- | ---
ZRS-3000 | Short
ZRS-4000 | Long

### Runner Bushings (Small)

**ITEM NUMBER R**
---
ZRB-3034 | .750
ZRB-3100 | 1.000
ZRB-3151 | 1.515

**ITEM NUMBER R**
---
ZRB-4034 | .750
ZRB-4100 | 1.000
ZRB-4151 | 1.515

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

**SECTION "X-X" SHORT STYLE**

**SECTION "X-X" LONG STYLE**

**DIMENSIONS ON SHORT STYLE SAME AS LONG STYLE EXCEPT AS SHOWN**

**VIEW "X-X"**

**NOTE: MAXIMUM RUNNER DEPTH = .150**

U.S. 800-626-6653 ● Canada 800-387-6600 ● www.dme.net
**Runner Spreaders and Bushings (Medium Size)**

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

<table>
<thead>
<tr>
<th>RUNNER SPREADERS (MEDIUM)</th>
<th>STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRS-5000</td>
<td>Short</td>
</tr>
<tr>
<td>ZRS-6000</td>
<td>Long</td>
</tr>
</tbody>
</table>

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

**Runner Bushings (Medium)**

<table>
<thead>
<tr>
<th>RUNNER BUSHINGS (MEDIUM - SHORT STYLE)</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRB-5034</td>
<td>.750</td>
</tr>
<tr>
<td>ZRB-5100</td>
<td>1.000</td>
</tr>
<tr>
<td>ZRB-5151</td>
<td>1.515</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RUNNER BUSHINGS (MEDIUM - LONG STYLE)</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRB-6034</td>
<td>.750</td>
</tr>
<tr>
<td>ZRB-6100</td>
<td>1.000</td>
</tr>
<tr>
<td>ZRB-6151</td>
<td>1.515</td>
</tr>
</tbody>
</table>
Runner Spreaders and Bushings (Large Size)

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

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRS-7000</td>
<td>Short</td>
</tr>
<tr>
<td>ZRS-8000</td>
<td>Long</td>
</tr>
</tbody>
</table>

**Runner Spreaders (Large)**

- **SECTION “X-X” SHORT STYLE**
  - 2.050
  - 2.25

- **SECTION “X-X” LONG STYLE**
  - 3.550
  - 81
  - 3.75

**Runner Bushings (Large)**

- **SECTION “X-X” SHORT STYLE**
  - 2.500
  - 1.875

- **SECTION “X-X” LONG STYLE**
  - 4.000
  - 1.00

**Dimensions on short style same as long style except as shown**

**Runner Spreaders (Large - Short Style)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRS-7010</td>
<td>1.000</td>
</tr>
<tr>
<td>ZRS-7125</td>
<td>1.250</td>
</tr>
<tr>
<td>ZRS-7151</td>
<td>1.515</td>
</tr>
</tbody>
</table>

**Runner Bushings (Large - Long Style)**

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZRB-8100</td>
<td>1.000</td>
</tr>
<tr>
<td>ZRB-8125</td>
<td>1.250</td>
</tr>
<tr>
<td>ZRB-8151</td>
<td>1.515</td>
</tr>
</tbody>
</table>

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

---

U.S. 800-626-6653  •  Canada 800-387-6600  •  www.dme.net
### For Die Cast Dies

Forged from Hi-tensile steel and thru-hardened. The design features a hardened, no-turn washer and a shape and range of sizes that permit universal application for any die. Other features include an adjusting screw large enough to span the "T" slot in platens with ample bearing surface on either side and a standard T-bolt long enough to satisfy clamping heights up to 2.250.

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

### Item No’s. DMCA-5-5 to DMCA-6-7

<table>
<thead>
<tr>
<th>DIE CLAMP ASSEMBLY ITEM NUMBER</th>
<th>CLAMP DIMENSIONS</th>
<th>REPLACEMENT PARTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMCA-5-5</td>
<td>L 5.1875  W 1.875  SLOT LENGTH 3.375</td>
<td>T-BOLT, NUT &amp; WASHER KIT DCK-5</td>
</tr>
<tr>
<td>DMCA-5-7</td>
<td>L 7.000  W 1.875  SLOT LENGTH 5.000</td>
<td>T-BOLT, NUT &amp; WASHER KIT DCK-6</td>
</tr>
<tr>
<td>DMCA-6-5</td>
<td>L 5.1875  W 2.000  SLOT LENGTH 3.375</td>
<td>T-BOLT, NUT &amp; WASHER KIT DCK-8</td>
</tr>
<tr>
<td>DMCA-6-7</td>
<td>L 7.000  W 2.000  SLOT LENGTH 5.000</td>
<td>T-BOLT, NUT &amp; WASHER KIT DMCAS-6</td>
</tr>
<tr>
<td>DMCA-8-95</td>
<td>L 9.500  W 2.625  SLOT LENGTH 5.3125</td>
<td>T-BOLT, NUT &amp; WASHER KIT DMCAS-8</td>
</tr>
</tbody>
</table>

**QUANTITY DISCOUNTS:**
Standard sizes may be mixed for quantity discounts. Discounts apply to current Net Prices.

- 60 to 99..........Less 5%
- 100 or more.......Less 10%