

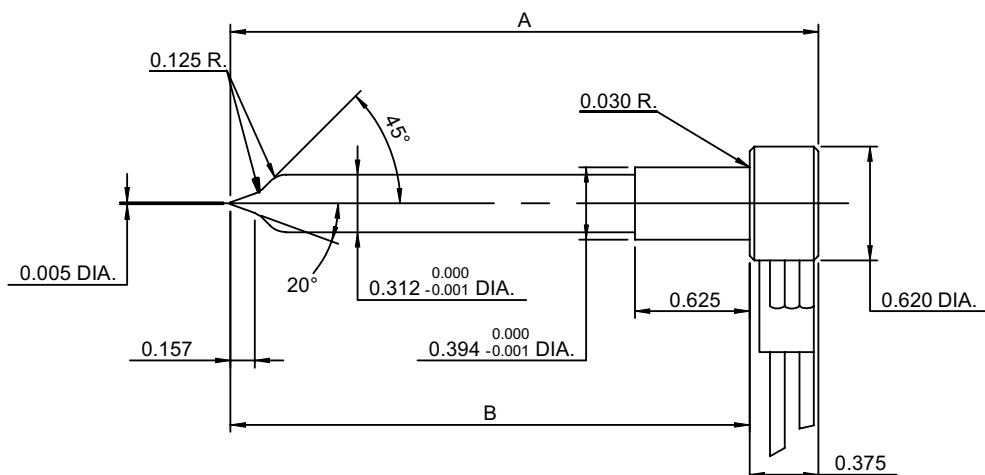
ME-0725-PS-216-B AFIP/ID 09-08  
**AUTO-FIXED INTEGRAL HEATER  
 MICRO PROBES**

Please read carefully before installing probes  
 REFER TO : MINI PRINT # 1700

**NOTE: PROBE DISCOLORATION**

Each Integral Heater probe sold by D-M-E is pretested.  
 This procedure discolors the outer surface of the probe,  
 but in no way alters its performance or dimensions

**AUTO-FIXED " INTEGRAL HEATER" MICRO PROBES**  
 (240 VAC, T/C TYPE J, 48" LEADS)  
 MATERIAL, AISI D-2 STEEL OR EQUIVALENT HARDNESS, 50-55 RC



| CATALOG NUMBER | A DIM. | B DIM. | WATTS |
|----------------|--------|--------|-------|
| AFIP3-310-90   | 3.095  | 2.720  | 110   |
| AFIP3-360-90   | 3.595  | 3.220  | 130   |
| AFIP3-410-90   | 4.095  | 3.720  | 150   |
| AFIP3-460-90   | 4.595  | 4.220  | 170   |

Note: Dimensions shown in Inches.



**IMPORTANT SAFETY INFORMATION**

A hot-runner system includes electrical elements and may contain molten plastic at elevated temperature and pressure. To avoid injury, exercise caution by reading these instructions before servicing or operating the system.

These instructions must be passed on to the end user where they should be read before using this product. Failure to do so can result in serious injury or death.



Failure to comply will result in serious injury or death:

**ELECTRICAL HAZARDS**

Improper voltages or grounding can result in electrical shock. Use only with proper voltage and a proper earth ground.

To avoid electrical shock, do not operate product when wet.

Do not operate this equipment with covers or panels removed.

To avoid electrical shock, turn off main power disconnect and lockout / tag out before servicing this device. Do not connect temperature sensors to electrical power. It will damage the product and it can cause fire, severe injuries or even death.

If green ground wire present wire must be connected to the ground.

Do not rebend rigid leads. Rebending leads might result in damage to circuit. Product might absorb moisture when cool. Use low Voltage or power to drive out residual moisture before applying full power. Failure to do so may cause damage to this product.



Failure to comply can result in serious injury or death:

**STORED ENERGY AND HIGH TEMPERATURE HAZARDS**

This product maintains molten plastic at high pressure. Use caution when operating and servicing the system.

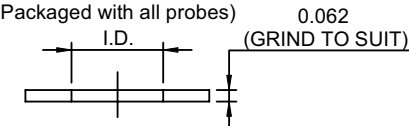
Physical contact with molten plastic may result in severe burns. Proper protective equipment, including eye protection, must be worn. This product has heated surfaces. Use caution when operating and servicing the system to avoid severe burns. Proper protective equipment should be worn.

| ITEM            | USED WITH<br>AFIP3-310-90 THRU AFIP3-460-90 |
|-----------------|---------------------------------------------|
| THERMOCOUPLE    | TC-9900                                     |
| ADJUSTMENT RING | RAF3-062                                    |
| REGISTER RING   | AFRR-03N                                    |
| GATE INSERT     | AFGI-03N                                    |

**THERMOCOUPLE**  
 (Installed in probe)

| CATALOG NUMBER | LEAD LENGTH |
|----------------|-------------|
| TC-9900        | 48"         |

**ADJUSTMENT RINGS**  
 (Packaged with all probes)



| CATALOG NUMBER | I.D.  |
|----------------|-------|
| RAF3-062       | 0.456 |

## 09-08



Technical drawing of a distributor assembly. The drawing shows a cross-section of the assembly with various dimensions and tolerances. Key features include:

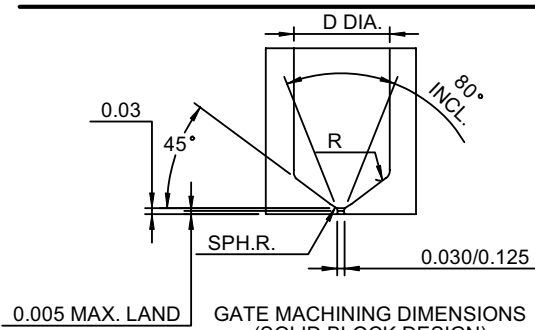
- Top Section:** A horizontal dimension of 0.25 MIN. is shown at the top right.
- Upper Shaft:** A dimension of 0.630 DIA. is shown for the upper shaft section.
- Intermediate Shaft:** A dimension of 0.395  $^{+0.001}_{0.000}$  DIA. is shown for the intermediate shaft section.
- Lower Shaft:** A dimension of 0.625 MIN. is shown for the lower shaft section.
- Distributor Bore:** A dimension of 0.875/1.125 DIA. DISTRIBUTOR BORE (SOLID BLOCK) is shown for the distributor bore.
- Bottom Section:** A dimension of 0.50 MIN. is shown for the bottom section, and a dimension of 0.25 RAD. is shown for the bottom radius.
- Overall Dimensions:** A dimension of 0.625 MIN. is shown for the overall height of the distributor bore, and a dimension of 0.812 DIA. is shown for the overall diameter of the bottom section.

| PROBE<br>CATALOG NUMBER | A DIM.<br>±0.010 | USED WITH                                                    |
|-------------------------|------------------|--------------------------------------------------------------|
| AFIP3<br>SERIES         | 0.428            | 0.394 DIA. DISTRIBUTOR PROBE<br>(0.875 DIA. CHANNEL OR BORE) |
|                         | 0.544            | 0.625 DIA. DISTRIBUTOR PROBE<br>(1.125 DIA. CHANNEL OR BORE) |
|                         | 0.550            | 0.628 DIA. DISTRIBUTOR TUBE<br>(1.125 DIA. CHANNEL OR BORE)  |

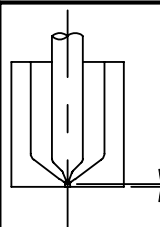
## INSTALLATION CHECK LIST

- 1) Insure that 0.630 diameter counterbore has been machined for probe head.
- 2) Check the hold down plate thickness and machined channel to insure contact with probe and fit against adjustment ring.
- 3) Measure all probe machining dimensions the 0.395 diameter probe bore must be with in the tolerance specified.
- 4) Double check that the probe "X" dimension is correct.

Probe Heaters are supplied with 48" long leads.  
Heaters are 240 VAC.  
2 power leads are Multi Color.  
Thermocouple is "J" Type.  
Thermocouple is supplied with 48"/ 24 Gage leads.  
1 T/C lead is WHITE and negative (-)  
constantan (non-magnetic).  
1 T/C lead is BLACK and positive (+)  
iron (magnetic).



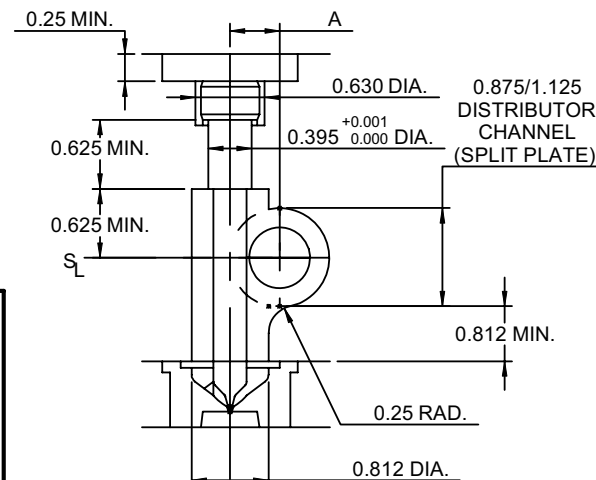
| AFIP3 SERIES PROBE |       |
|--------------------|-------|
| D DIA.             | 0.812 |
| SPH. R.            | 0.187 |
| R                  | 0.375 |



| PROBE<br>CATALOG NUMBER | X DIM.      |
|-------------------------|-------------|
| AFIP3-310-90            | 0.000-0.003 |
| AFIP3-360-90            | 0.000-0.004 |
| AFIP3-410-90            | 0.000-0.004 |
| AFIP3-460-90            | 0.000-0.005 |

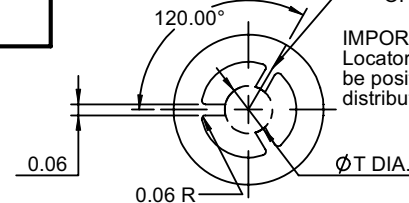
**NOTE:** X Dimension is for initial probe set up and may require further adjustment. Final position of probe tip will be determined by gate cosmetics and flow requirements.

## PROBE MACHINING DIMENSIONS - SPLIT PLATE DESIGN

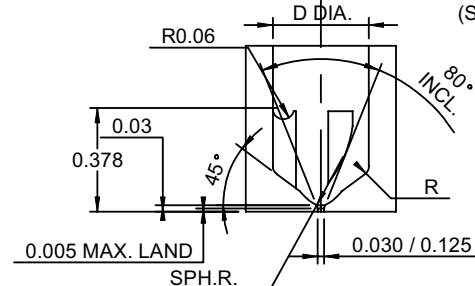


## — OPTIONAL LOCATIONS

**IMPORTANT:** When using a single Locator, the primary locator must be positioned directly opposite the distributor channel feeding the drop



### GATE MACHINING DIMENSIONS (SPLIT PLATE DESIGN)



| AFIP3 SERIES<br>PROBE |       |
|-----------------------|-------|
| D DIA.                | 0.812 |
| T DIA.                | 0.313 |
| SPH. R.               | 0.187 |
| R                     | 0.375 |

REFER TO MINI PRINT 1700  
FOR GUIDELINES OTHER THAN THOSE SHOWN

**DME COMPANY**

42827 Irwin Drive  
Harrison Twp. MI 48045USA  
US 800-656-6653  
CANADA 800-387-6600  
[www.dme.net](http://www.dme.net)

DME SHALL NOT BE LIABLE FOR MISUSE OR FAILURE TO FOLLOW THE ENCLOSED INSTRUCTIONS AND SPECIFICATIONS. D-M-E HERBY TO DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL DME BE RESPONSIBLE FOR LOSS OF USE, REVENUE OR PROFIT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGED.