

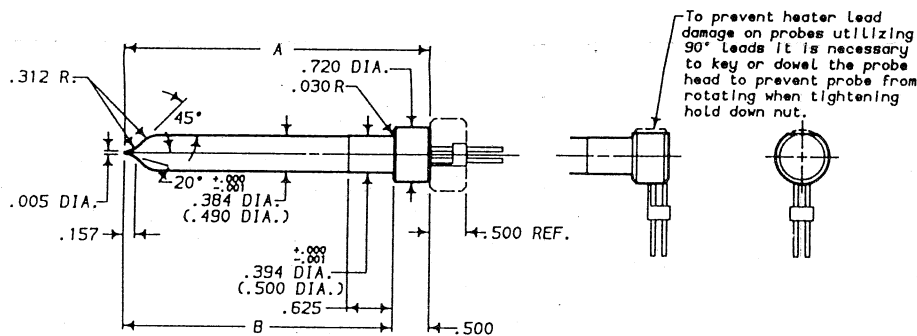
# D-M-E

## AUTO-FIXED™ INTEGRAL HEATER™ PROBES INSTALLATION DATA

Please read carefully before installing probes  
REFER TO MINI-PRINTS NOS. 1300 AND 1500  
AND DATA SHEET NO. 1315

### 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.

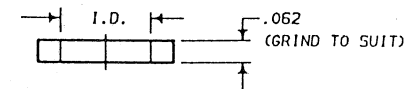


IMPORTANT: DIMENSIONS SHOWN IN PARENTHESES APPLY TO LARGER PROBES AFIP5-372 THRU 622 ONLY. TOLERANCES SHOWN ALSO APPLY TO DIMENSIONS IN PARENTHESES.

ITEM	USED WITH AFIP4-322 (90) THRU 472 (90)	USED WITH AFIP5-372 (90) THRU 622 (90)
HOLD DOWN NUT	AFN-100	AFN-100
THERMOCOUPLE	TC-9900	TC-9900
ADJUSTMENT RING	RAF4-062	RAF5-062
REGISTER RING	AFRR-04N	AFRR-05N
GATE INSERT	AFGI-04N	AFGI-05N

### ADJUSTMENT RINGS

(Packaged with all probes)



CATALOG NUMBER	I.D.	USED WITH
RAF4-062	.469	AFIP4 SERIES
RAF5-062	.565	AFIP5 SERIES

### HOLD DOWN NUT

(Packaged with all probes)

THICKNESS = .500

THREAD = 1"-8

HEX FLAT = 9/16

CATALOG NUMBER
AFN-100

### THERMOCOUPLE

(Packaged with all probes)

CATALOG NUMBER	LEAD LENGTH
TC-9900	48"

## AUTO-FIXED™ INTEGRAL HEATER™ PROBES (240 VAC, T/C TYPE J GROUNDED, 48" LEADS)

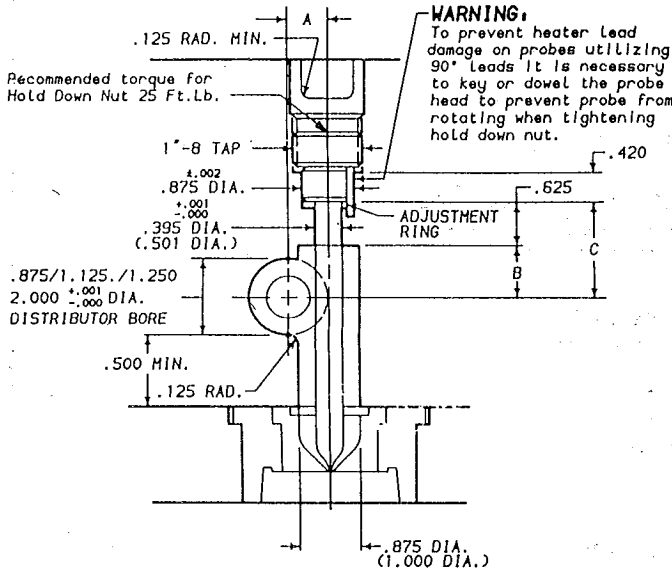
MATERIAL: AISI D-2 STEEL HARDNESS: 50-55 Rc

### PROBE DIMENSIONS

CATALOG NUMBER	AFIP4 SERIES PROBES .394 (10mm) DIAMETER			
STRAIGHT EXIT LEADS	90° EXIT LEADS	A DIM.	B DIM.	WATTS
AFIP4-322	AFIP4-322-90	3.220	2.720	135
AFIP4-372	AFIP4-372-90	3.720	3.220	160
AFIP4-422	AFIP4-422-90	4.220	3.720	185
AFIP4-472	AFIP4-472-90	4.720	4.220	210

CATALOG NUMBER	AFIP5 SERIES PROBES .500 (12.9mm) DIAMETER			
STRAIGHT EXIT LEADS	90° EXIT LEADS	A DIM.	B DIM.	WATTS
AFIP5-372	AFIP5-372-90	3.720	3.220	200
AFIP5-422	AFIP5-422-90	4.220	3.720	230
AFIP5-472	AFIP5-472-90	4.720	4.220	265
AFIP5-522	AFIP5-522-90	5.220	4.720	295
AFIP5-572	AFIP5-572-90	5.720	5.220	325
AFIP5-622	AFIP5-622-90	6.220	5.720	360

## PROBE MACHINING DIMENSIONS - SOLID BLOCK DESIGN



USE WITH .394 DIA. DISTRIBUTOR PROBE  
(.875 DISTRIBUTOR BORE-CHANNEL)

PROBE CAT. NO.	A DIM. ±.020	B DIM. MIN.	C DIM. MIN.
AFIP4 SERIES	.464	.788	1.413

USE WITH .625 DIA. DISTRIBUTOR PROBE  
(1.125 DISTRIBUTOR BORE-CHANNEL)

PROBE CAT. NO.	A DIM. ±.020	B DIM. MIN.	C DIM. MIN.
AFIP4 SERIES	.579	.788	1.413
AFIP5 SERIES	.632	1.000	1.625

USE WITH .875 DIA. DISTRIBUTOR TUBE  
(1.25 DISTRIBUTOR BORE-CHANNEL)

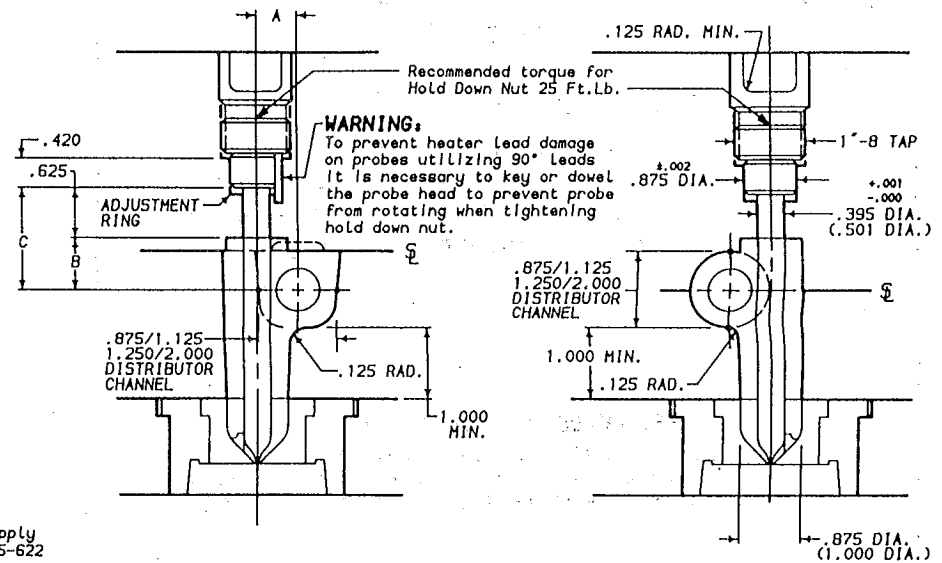
PROBE CAT. NO.	A DIM. ±.020	B DIM. MIN.	C DIM. MIN.
AFIP4 SERIES	.709	.788	1.413
AFIP5 SERIES	.762	1.000	1.625

USE WITH 1.625 DIA. DISTRIBUTOR TUBE  
(2.00 DISTRIBUTOR BORE-CHANNEL)

PROBE CAT. NO.	A DIM. ±.020	B DIM. MIN.	C DIM. MIN.
AFIP5 SERIES	1.137	1.000	1.625

IMPORTANT: Dimensions shown in parentheses apply to larger probes AFIP5-372 thru 5-622 only. Tolerances shown also apply to dimensions in parentheses.

## PROBE MACHINING DIMENSIONS - SPLIT PLATE DESIGN

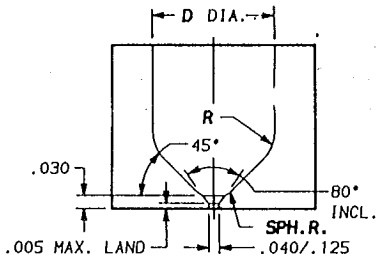


### INSTALLATION CHECKLIST

- .875 Diameter Counterbore
  - Is the thread depth sufficient to permit full tightening of the probe against the flat surface of the counterbore or adjustment ring?
- .395(.501) Diameter Probe Bore
  - Is the "A" dimension within the specified range?
- Probe Set-Up Dimension
  - Refer to chart. Check "X" dimension.

### THERMOCOUPLE (T/C) AND HEATER LEAD WIRES

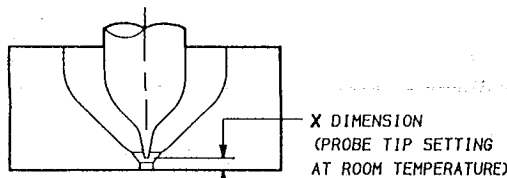
- White and Red wires are thermocouple leads. White is Positive (+) and magnetic (Iron). Red is Negative (-) (constantan).
- Black wires are Power Leads.



### GATE MACHINING DIMENSIONS (SOLID BLOCK DESIGN)

PROBE SERIES	AFIP4	AFIP5
D DIA.	.875	1.000
R	.375	.375
SPH. R.	.187	.187

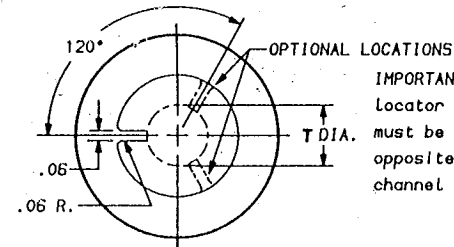
### INITIAL PROBE SET-UP DIMENSIONS (SOLID BLOCK OR SPLIT PLATE DESIGN)



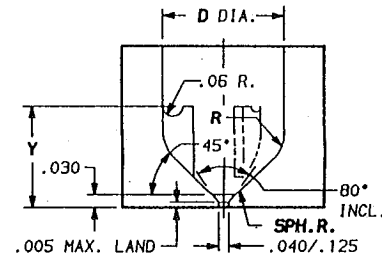
PROBE CATALOG NUMBER	X DIM.
AFIP4-372 (90)	.000-.004
AFIP4-422 (90)	.000-.004
AFIP4-472 (90)	.000-.005
AFIP5-372 (90)	.000-.004
AFIP5-422 (90)	.000-.004

PROBE CATALOG NUMBER	X DIM.
AFIP5-472 (90)	.000-.005
AFIP5-522 (90)	.000-.005
AFIP5-572 (90)	.000-.006
AFIP5-622 (90)	.000-.006

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.



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)

PROBE SERIES	AFIP4	AFIP5
D DIM.	.875	1.000
T DIM.	.390	.496
Y DIM.	.480	.530
SPH. R.	.187	.187
R	.375	.375

REFER TO MINI PRINTS 1300, 1400, 1500 AND 1600 FOR GUIDELINES OTHER THAN THOSE SHOWN.



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ME-0725-PS-213-A