Components for Micro Cool One® Split Plate/Solid Block Designs

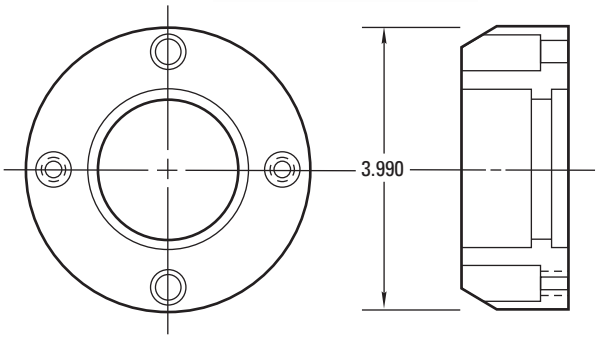
Components for Micro Cool One® Split Plate/Solid Block Designs

- Micro components for smaller molds or increased cavitation in larger molds
- Integral heaters in all probes improve heat transfer throughout system
- Applicable for split plate or solid block designs

Locating Ring (for Heated Nozzle Locator)

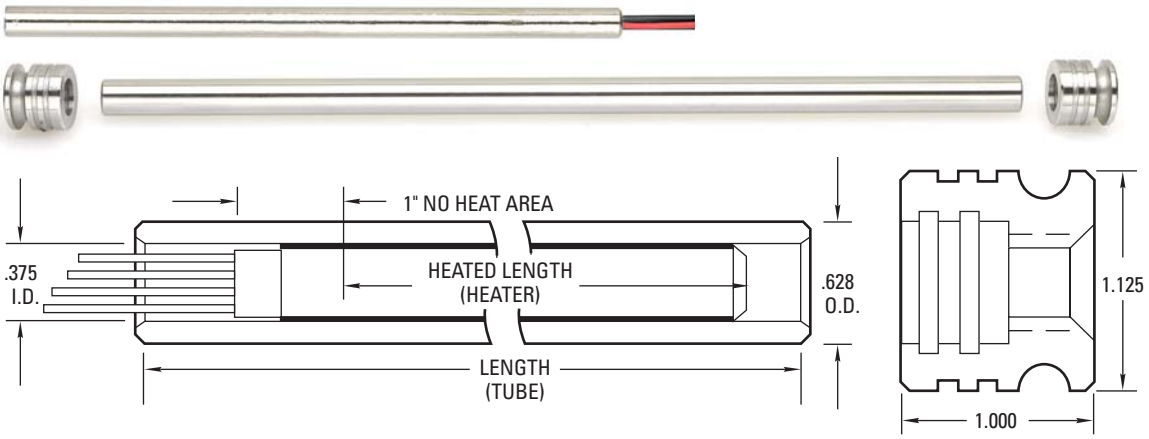
NOTE: In addition to use with Micro Cool One designs, this locating ring can be used with any Cool One system employing the heated nozzle locator in its design.

ITEM NUMBER
HNR0001



See the end of this section for component detail dimensions and design and machining guidelines.

Micro Cool One Distributor Tubes, End Caps, Distributor Tube Heaters



Thermocouple (T/C) Distributor Tube Heaters (240 VAC, T/C Type J, 34" Leads)

Distributed wattage heater design for more uniform temperature control. Sealed, flexible teflon covered leads to prevent lead damage and improve moisture resistance.

DIA (AMPS)*	ITEM NUMBER	OVERALL LENGTH	HEATED LENGTH	WATTS
.375 (10 AMP)	HCTC034	5.000	4.000	320
	HCTC0345	5.500	4.500	340
	HCTC035	6.000	5.000	400
	HCTC0355	6.500	5.500	430
	HCTC036	7.000	6.000	450
	HCTC0365	7.500	6.500	470
	HCTC037	8.000	7.000	480

DIA (AMPS)*	ITEM NUMBER	OVERALL LENGTH	HEATED LENGTH	WATTS
.375 (10 AMP)	HCTC0375	8.500	7.500	515
	HCTC038	9.000	8.000	550
	HCTC039	10.000	9.000	650
	HCTC0310	11.000	10.000	710
	HCTC0311	12.000	11.000	720
	HCTC0312	13.000	12.000	760
	HCTC0313	14.000	13.000	810

*(AMPS) = Amperage requirement for temp. control module.

Distributor Tubes

MATERIAL: AISI 4140 STEEL
HARDNESS: 28-35 HRC

ITEM NUMBER	LENGTH
HT050312	11.82
HT050316	15.76

End Cap

MATERIAL: AISI 4140 STEEL

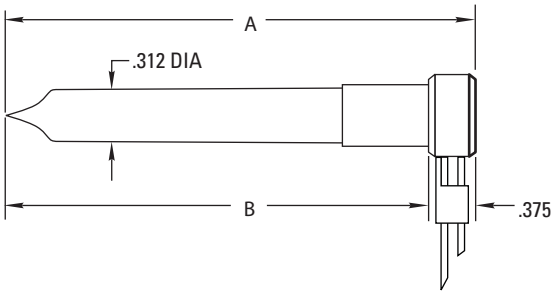
ITEM NUMBER
EC1105

Components for Micro Cool One®
Solid Block Designs

Auto-fixed® "Integral Heater" Micro Probes (240 VAC, T/C Type J, 48" Leads)

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

ITEM NUMBER*	A	B	WATTS
AFIP331090	3.095	2.720	110
AFIP336090	3.595	3.220	130
AFIP341090	4.095	3.720	150
AFIP346090	4.595	4.220	170



Replacement Thermocouple

ITEM NUMBER	LEAD LENGTH
TC9900	48"

Register Ring

MATERIAL: AISI H-13 STEEL
HARDNESS: 48-52 HRC
I.D. = .313
O.D.= 1.000

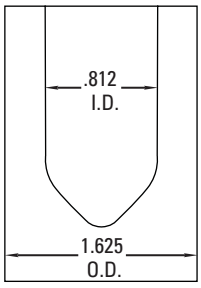
ITEM NUMBER
AFRR03N

Gate Insert

MATERIAL: AISI S-7 STEEL (pre-hardened)
HARDNESS: 30-34 HRC

Hardness can be increased to a higher value by heat treatment if desired.

ITEM NUMBER
AFGI03N



Adjustment Ring

(Packaged with all probes)

For simplified counterbore depth adjustment.

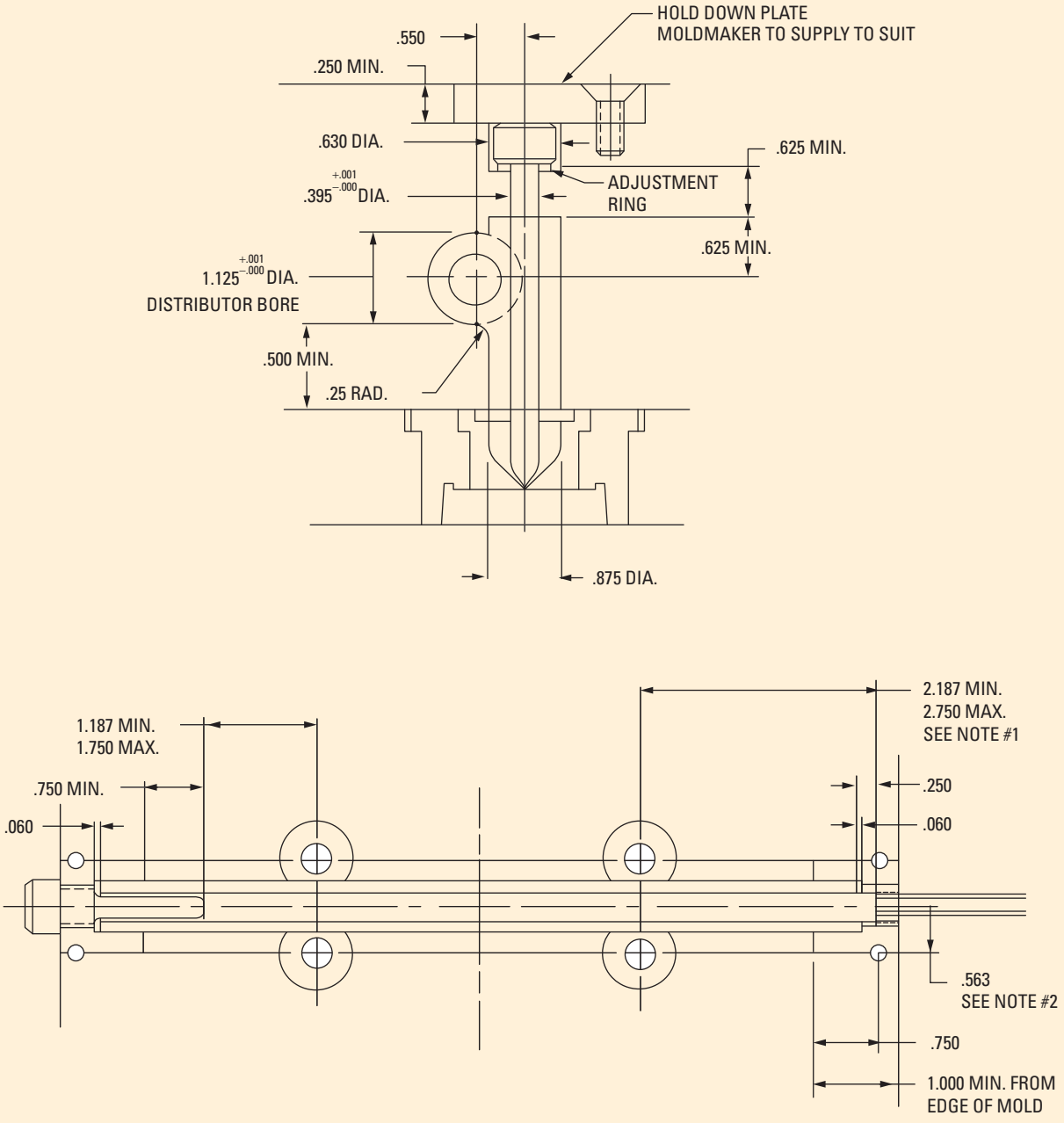
I.D. = .456 THICKNESS = .062

ITEM NUMBER*
RAF3062

*Package of 10.

Probe Machining Dimensions for Micro Cool One

PROBE MACHINING DIMENSIONS – SOLID BLOCK DESIGN



NOTES:

1. Due to the longer no-heat section at the lead end, heater will not be centered in distributor tube.
2. The use of (2) .250 dia. dowel pins with .562 distance between dowel pin and end cap centerlines is recommended to secure end cap into mold.

Micro Cool One® Solid Block Designing and Machining Guidelines and Components

MICRO COOL ONE® SOLID BLOCK DESIGNING AND MACHINING GUIDELINES

Machining for Heated Nozzle Locator and Locating Ring

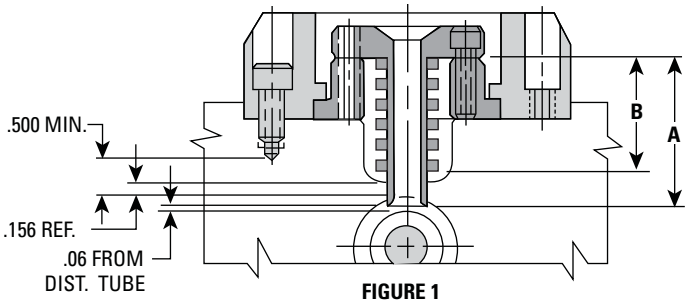
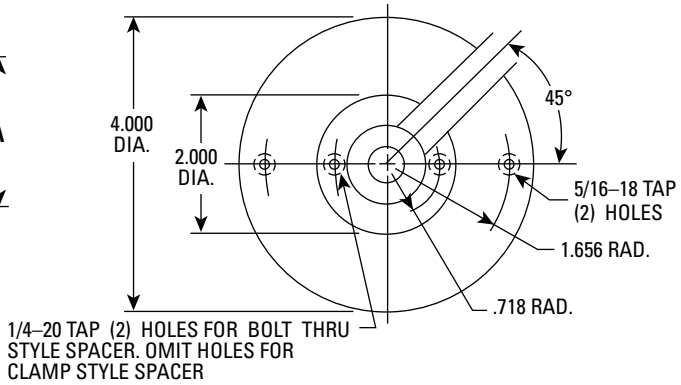


FIGURE 1



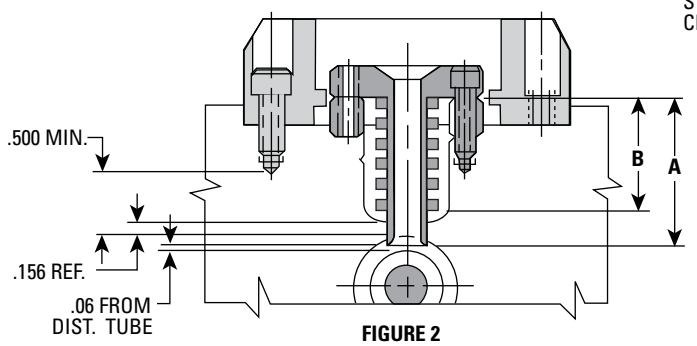


FIGURE 2

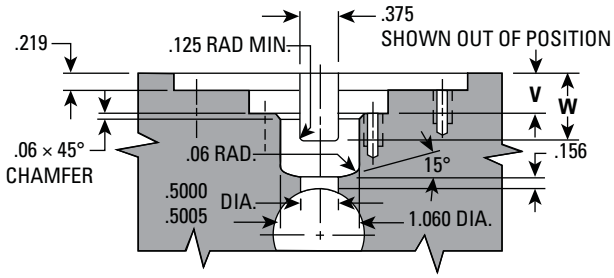


FIGURE 3

ALL APPLICATIONS

The locator's core tip should be positioned .06 from the top of the distributor tube, establishing the 'A' dimension. In most cases, the dimension from the bottom of the core head to the locating ring counterbore will equal the adjusted height of the spacer. (The 'B' dimension, for reference, is the heater length of 1.450 or 1.950, depending on core length being used.)

CLAMP STYLE SPACER APPLICATION (FIGURE 1)

In conjunction with a DME HNR0001 locating ring, the flange on the spacer is utilized as a clamp style heater nozzle locator. The core is secured to the spacer with two 1/4–20 S.H.C.S.

BOLT THRU STYLE SPACER APPLICATION (FIGURE 2)

Another option is to remove the flange and adjust the spacer height to the desired dimension, then secure the heated nozzle locator through the spacer with two 1/4–20 S.H.C.S. into the mold plate. Use caution to insure that the tapped holes are .500 minimum from the distributor channel. Spacer thickness should never be less than .250. However, if a condition results where the spacer would be less than .250, counterbore a 2.000 diameter into the plate to a 'V' depth that will accept the .250 spacer. (See Figure 3)

ALL APPLICATIONS

In order to maintain plate strength, the depth of the lead wire channel, dimension 'W', must be no deeper than required to contain the heater leads. The distance from the bottom of the core head to the bottom of the leads is .800. Channel depth can be determined accordingly, based on the distance between the core head and the top of the mold.