

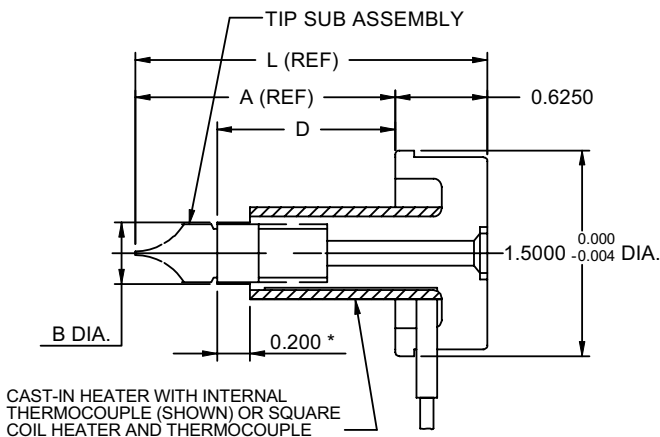
ME-0739-PS-310-D 09-08 GMB9999  
**GATE-MATE NOZZLE ASSEMBLIES**  
**INSTALLATION DATA**  
 Please read carefully before installing components.



Note: Dimensions shown in Inches.

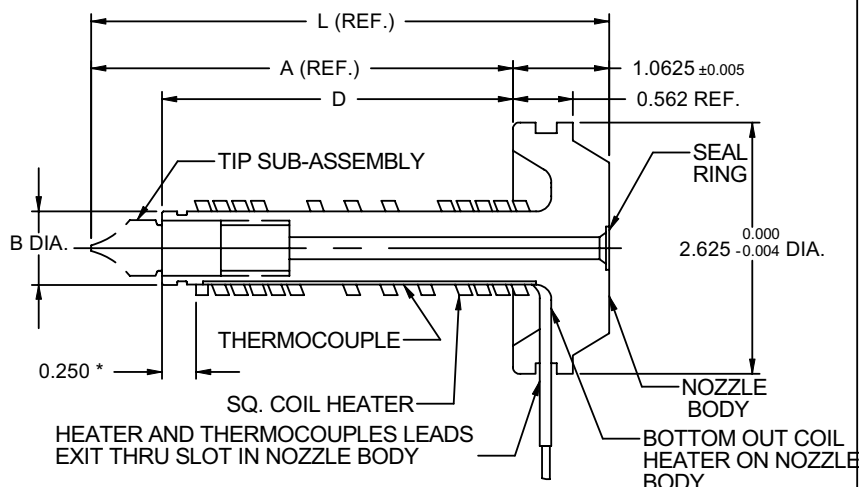
NOZZLE STYLE	CATALOG NUMBER	L DIM.	A DIM.	B DIA.	D DIM.	HEATER STYLE
JUMBO	GMB0120	4.562	3.500	1.2500	2.645	SQ. COIL
	GMB0119	3.562	2.500		1.645	
MINI	GMB0110	2.000	1.375	0.6250	1.094	CAST-IN
	GMB0118					SQ. COIL

**MINI GAT-MATE SUB-ASSEMBLY**



\* DIMENSION INDICATES CORRECT HEATER DISTANCE

**JUMBO GATE-MATE ASSEMBLY**



\* DIMENSION INDICATES CORRECT HEATER DISTANCE.

**RECOMMENDATIONS AND GUIDELINES**

- Nozzle (multiple-applications) body must be cleaned of any material in the seal-off area and threaded areas before reassembling.
- Careful attention should be taken to the tip as damage could occur if tip is dropped or strikes a rigid material. Treat tip like a glass or ceramic material.
- Do **NOT** lubricate or use anti-seize compound on the threads.
- Tip must be torque into the nozzle body using a torque wrench at 20 to 25 ft-lbs for the GMT0101 and GMT0006 wear resistant tips, and 35 ± 5 ft-lbs. for all other tips when reassembling. For protection of the tip point, use a 9 mm deep well 6 point thin wall socket for the Mini, and 17 mm deep well 6 point socket for the jumbo.
- Careful attention should be taken to the heater and thermocouple leads as damage could occur when working on nozzle assembly.
- Seal ring for nozzle body must be replaced each time nozzle body and / or manifold are removed to ensure seal off.
- For the Mini Gate-Mate nozzle, machine the 1.501 +0.001 -0.000 directly into the nozzle plate, 0.125 minimum to 0.375 maximum deep, to fit the nozzle's head. For the Jumbo Gate-Mate nozzle, machine the 2.626 diameter +0.001/-0.000 directly into the nozzle plate, 0.250 minimum to 0.750 maximum deep, to fit the nozzle's head.
- Machine the "B" diameter + 0.0005 -0.0000 directly into the cavity carefully, as this is a seal-off dimension to fit the nozzle's seat.
- For best processing and lowest gate vestige, tip must be 0.000 to 0.005 into the cavity at processing temperature. The smallest gate diameter will yield the best gate vestige. Depending on part configuration and plastic being used, the gate may have to be enlarged to achieve greater flow. This increase in diameter may result in a larger gate vestige.
- Provide maximum water cooling in the nozzle plate and in cavity insert around plate.
- Route wires through wire channel in nozzle plate.
- Provide a gate dimple on core/cavity opposite gate. This will allow for best material flow.
- Wait a minimum of 5 minutes after set point has been achieved for sufficient heat to transfer into the tip before molding.

- Use the GMT0004 jumbo tip machining dimensions when using the GMT0007 thru hole tip. This tip was designed 0.040 shorter in length to be a direct replacement for the jumbo tip. Given a "A" dimension of 2.500 + BE (NOT 2.460 + BE) using the GMT0007 tip. For best processing and lowest gate vestige a 0.080 to 0.125 diameter gate is recommended.

**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.

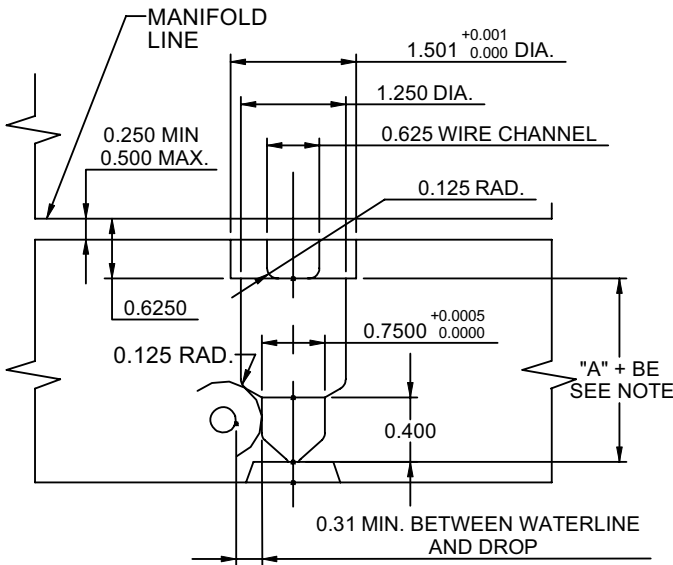
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**GATE-MATE NOZZLE ASSEMBLIES  
 INSTALLATION DATA**

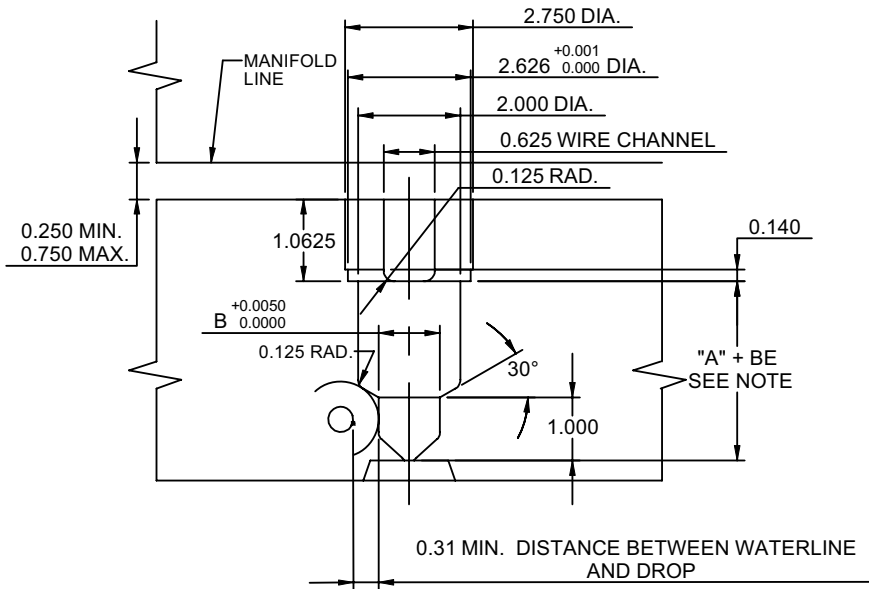
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**MINI GATE-MATE MACHINING DIMENSIONS**

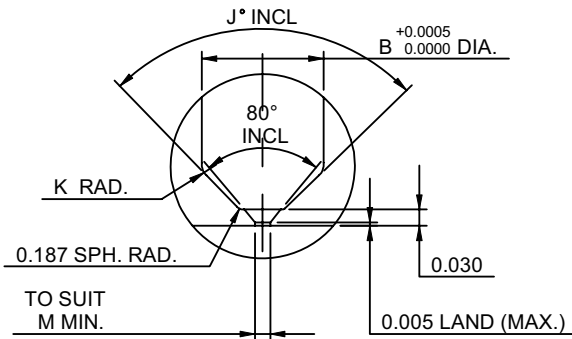


**JUMBO GATE-MATE MACHINING DIMENSIONS**



Note: Dimensions shown in Inches.

NOZZLE STYLE	CATALOG NUMBER	A DIM.	B DIM.	J°	K RAD.	M DIM.
JUMBO	GMB0120	3.500	1.2500	90°	0.375	0.070
	GMB0119	2.500				
MINI	GMB0110	1.375	0.6250	118°	0.125	0.030
	GMB0118					



NOTE: The expansion factor must be taken into consideration prior to machining for, and installing nozzle. This factor (BE) must then be added to the nominal "A" dimension. Formula for determining this expansion is as follows:

BE = "A" dimension x 0.0000633 x (nozzle setpoint - 68° F).

EXAMPLE: Given a 2.500 Inch "A" dimension, with a nozzle setpoint temperature of 500° F.

BE = 2.500 x 0.0000633 x (500 - 68) = 0.0068.... thus "A" + BE will be 2.5068.

Please note that the above information is given as an example. Variations may occur based on mold configuration and cooling factor. In some instances it may be necessary to obtain an empirical factor.

SUB-ASSEMBLY REFERENCE	SQUARE COIL HEATERS (240 VAC) # #		THERMOCOUPLES (40" LEADS)	SEAL RINGS (PKG OF 4)	SUB-ASSEMBLY TIPS	
	CATALOG NUMBER	WATTS	CATALOG NUMBER	CATALOG NUMBER	CATALOG NUMBER	STYLE
GMB0120	SCH0001	800	TC-0001	EHR0001	GMT0004	STANDARD WEAR RESISTANT # THRU HOLE
GMB0119	SCH0002	600	TC-0002		GMT0006	
GMB0118	SCH0004	225	TCG0100	GMT0007		
GMB0110	CAST-IN	225	N/A	EHR0155	GMT0100	STANDARD WEAR RESISTANT #
					GMT0101	

# WEAR RESISTANT TIP IS RECOMMENDED FOR ABRASIVE MATERIALS.  
 ## INCLUDES INSTALLATION / REMOVAL WRENCH

**WIRING INFORMATION**

Square Coil and cast-In heaters are supplied with 2" prestripped 42" long leads. Heaters are 240 VAC (120 VAC square coil heaters are available on request)

2 power leads are MULTI COLOR  
 1 ground lead is GREEN.

Thermocouples are "J" Type.  
 Thermocouples are supplied with 40" leads.

1 T/C lead is WHITE and negative (-) constantan (non-magnetic).  
 1 T/C lead is BLACK and positive (+) iron (magnetic).

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