

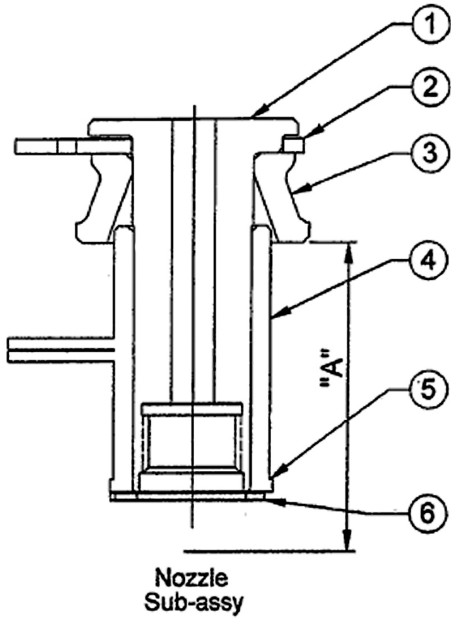


ME-050019-0094-D
BIOP9999

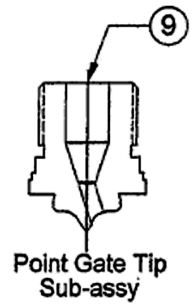
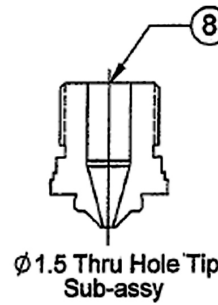
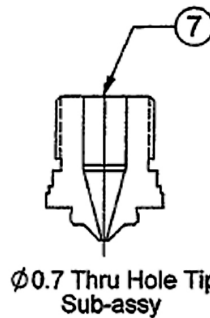
29111 Stephenson Hwy.
Madison Heights, MI 48071 USA
800-626-6653

ECO-SMART Hot Runner System

Note:
Maximum operating pressure in nozzle 138MPa (20,000 PSI)
Maximum operating temperature of nozzle 288 °C (550 °F)



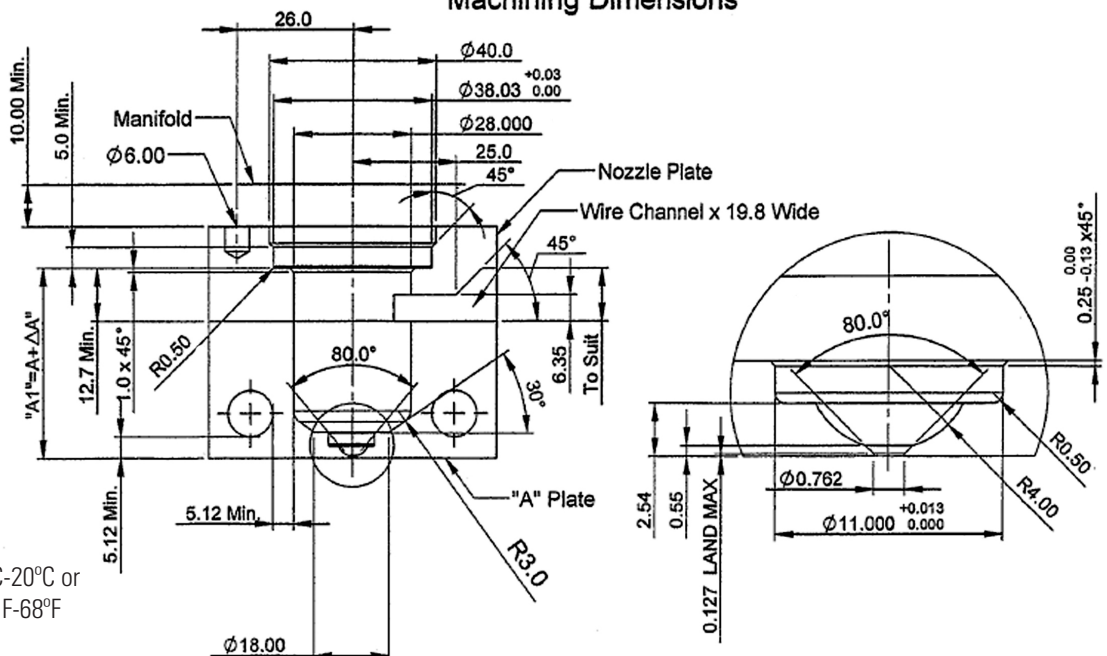
Detail#	Cat#
7	BIOT1206
8	BIOT1205
9	BIOT1207



"A"	Sub-Assy #	Detail #1 Nozzle Body	Detail #2 Locator	Detail #3 Head	Detail #4 Heater	Detail #5 Thermocouple	Detail #7 Heater Clip
45.00	BIONA1225	BIOB1220	GLX1001	GXE1005	GXH3143	GXC1143	GXR1001
50.00	BIONA1226	BIOB1220	GLX1001	GXE1000	GXH3143	GXC1143	GXR1001
65.00	BIONA1227	BIOB1221	GLX1001	GXE1005	GXH3163	GXC1163	GXR1001
70.00	BIONA1228	BIOB1221	GLX1001	GXE1000	GXH3163	GXC1163	GXR1001

Tip #	"D"
BIOT1206	0.7
BIOT1205	1.5
BIOT1207	0.7 min.

Machining Dimensions



Nozzle thermal Expansion:
 $\Delta A = A \times 0.0000115 \times (\text{Setpoint } C - 20^\circ C)$ or
 $\Delta A = A \times 0.00000064 \times (\text{Setpoint } F - 68^\circ F)$
 Dimensions shown in mm



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PLEASE READ INSTRUCTIONS BEFORE SERVICING OR OPERATING

IMPORTANT SAFETY INFORMATION -DANGER-WARNING

A hot-runner system includes electrical elements and may contain molten plastic at elevated temperatures 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.

ELECTRICAL HAZARDS

Failure to comply can result in serious injury or death.

- Improper voltages or grounding can result in electrical shock. Use only with proper voltage and 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 lock-out/tag out before servicing this device.
- Do not connect temperature sensors to electrical power. It will damage the product and 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.

STORED ENERGY AND HIGH TEMPERATURE HAZARDS

Failure to comply can result in serious injury or death.

- This product contains 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.

OPERATING PROCEDURE

- The nozzles are supplied with a coil heater and a "J" type external thermocouple.
- It is recommended to use a DME Closed Loop Temperature Controller for optimum temperature control.
- It is essential to use controller with the proper voltage and wattage capabilities.

WIRING INFORMATION

- Heaters are supplied with 1350mm (53") long leads.
- Heaters are 240 VAC.
- (2) power leads are Multi-Color
- Thermocouples are "J" type
- Thermocouples are supplied with 48" long leads
- (1) T/C lead is White and negative (-) constantan (non-magnetic)
- (1) T/C lead is Black and positive (+) iron (magnetic)

DME shall not be liable for misuse or failure to follow the enclosed instructions and specifications. DME hereby 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 damage.



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MATERIAL EXTRUSION RECOMMENDATION

1. If processing a molton plastic that is prone to degradation as a result of excessive heat, or, that is residence-time sensitive, first ensure to extrude the processing material out of the hot-runner assembly, using another molton plastic that has similar processing temperature, and is not prone to thermal degradation and which is not as residence-time sensitive. Do this before attempting to replace a nozzle tip.
2. For further assistance, contact DME Hot-Runner Service 800-626-663.

DISASSEMBLY PROCEDURE

Careful attention should be taken to the heater and thermocouple leads and tip as damage could occur when working on nozzle assembly.

Heater and Thermocouple Removal Instructions:

1. Turn off power to controller
2. Remove "A" plate from mold
3. Remove heater clip with snap ring pliers
4. Remove any wire straps from wire channels
5. Unwire heater and thermocouple from the terminal mounting box
6. Slide heater and thermocouple off of nozzle body
7. Remove thermocouple from groove on the inside of the heater

Tip Removal Instructions:

1. Remove "A" plate from mold
2. A 17mm, six point, deep well sockets is recommended
3. Nozzle must be at processing temperature and heater must be turned off when removing tip counter-clockwise from nozzle

ASSEMBLY PROCEDURE

Heater and Thermocouple Assembly Instructions:

1. Bend new thermocouple leads to the correct position using old thermocouple as a guide.
2. Bend new heater leads to the correct position using old heater as a guide.
3. Place new thermocouple into the inside groove of heater.
4. Slide heater and thermocouple sub-assembly onto nozzle body. Note that the "TIP END" is indicated on the heater for proper orientation.
5. Place heater clip onto the nozzle assembly using snap ring pliers.
6. Wire in heater and thermocouple leads into the terminal mounting box.
7. Attach all wire straps to hold heater and thermocouple leads in place.
8. Use a multimeter to check heater and thermocouple resistances.
9. Assemble "A" plate onto mold.

WARNING: Do not assemble when nozzles are hot, damage may occur due to thermal expansion of nozzle seal-off area.

Tip Assembly Instructions:

1. Tip and nozzle threads must be clean of any material before re-assembling.
2. Apply an anti-seize compound on the thread of the tip.
3. Firmly thread the tip onto the nozzle. tighten and untighten three (3) times, making sure there is good contact between the tip and nozzle.
4. Torque tip into the nozzle using 35 ft. lbs with a 17mm, six point deep well socket.
5. Place heater clip onto the nozzle assembly using snap ring pliers.
6. Assemble "A" plate onto mold.
7. Warning: Do not assemble when nozzles are hot, damage may occur due to thermal expansion of nozzle seal-off area.