

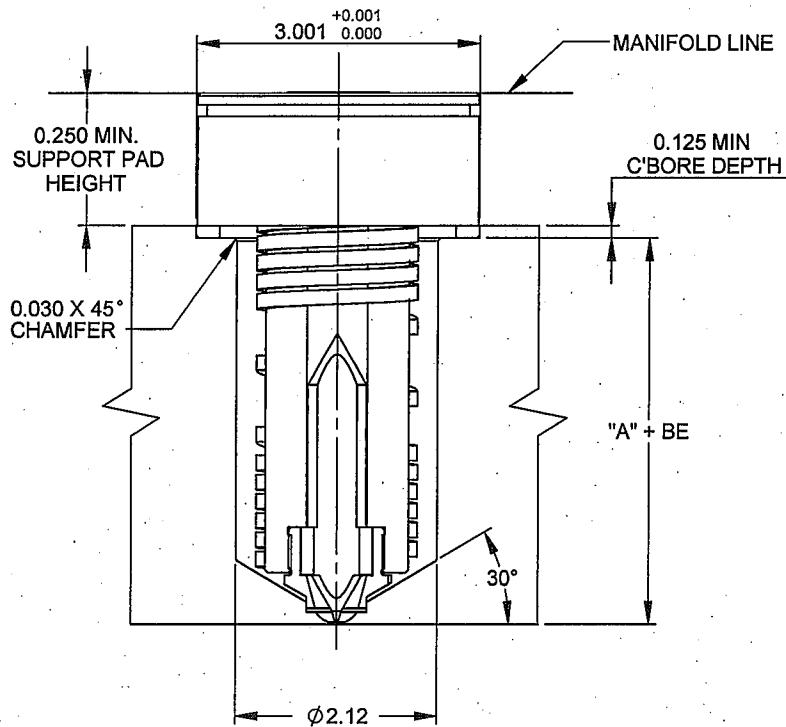
**SERIES 625
POINT GATE NOZZLE
MACHINING &
INSTALLATION DATA**

ME-X741-PS-381(A)

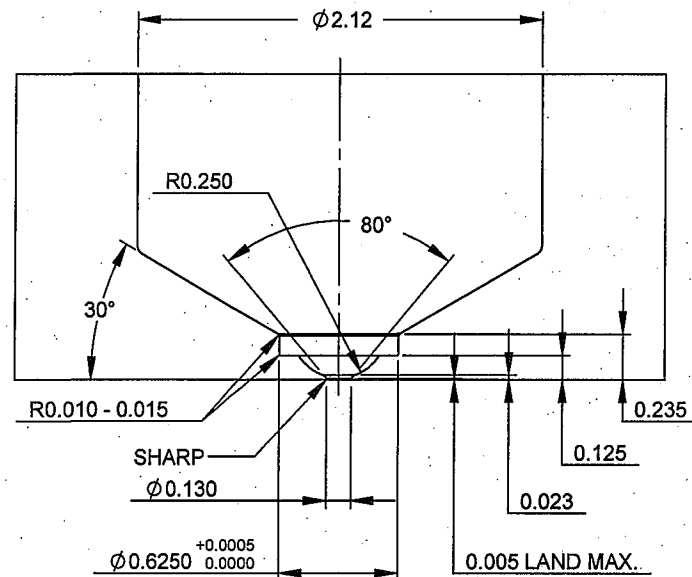
PG6/IS



NOTE: ALL DIMENSIONS SHOWN ARE INCHES



GATE MACHINING DETAIL



NOTE: Before installing a Point Gate Nozzle, it is important to take the nozzle's expansion factor into consideration. For best results, please follow the information below.

Please note that the needle position in relation to the cavity line is of extreme importance. To compensate for the nozzle's growth when heat is applied, the linear expansion of the nozzle (BE) at a given temperature must be added to the nominal "A" dimension. The position of the needle will now be flush or slightly protruding thru the gate. The formula below shows how to figure boring depth (dimension "A" + BE). The 0.125 and the 0.235 dimensions as shown in the above Gate Machining Detail drawing are constant.

Formula for determining this expansion factor is as follows:
 $BE = "A" \text{ dimension} \times 0.00000633 \times (\text{Nozzle set point temperature} - 68 \text{ } ^\circ\text{F})$

EXAMPLE: Given a 4.000 inch "A" dimension, with a nozzle set point temperature of 500 °F:
 $BE = 4.000 \times 0.00000633 \times (500 - 68) = 0.011$
 Thus "A" + BE will be 4.011

NOTE: The above information is only given as an example. variations may occur based on mold configurations and cooling factor. In some instances, it may be necessary to obtain an empirical factor.

NOZZLE SUB-ASSEMBLY CATALOG NUMBER	"A" DIMENSION FOR NOZZLE ASSEMBLY
EHA0016	4.000
EHA0017	5.000
EHA0018	6.000
EHA0019	7.000
EHA0020	8.000
EHA0021	9.000
EHA0022	10.000

POINT GATE TIP SUB-ASSEMBLY

CATALOG NUMBER	TIP STYLE
EHT1306	STANDARD
EHT1311	
EHT1307	WEAR RESISTANT
EHT1310	

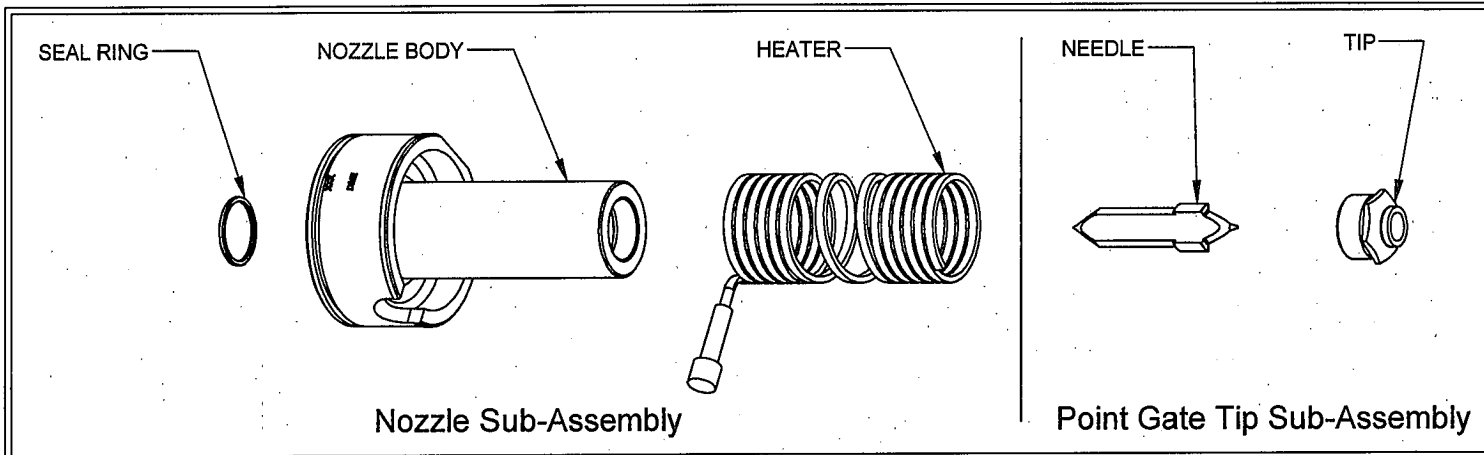
NOTE: Nozzle Assembly requires Nozzle Sub-assembly and Tip Sub-assembly.

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 damages.

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**OPERATING & SERVICING INSTRUCTIONS
FOR 625 SERIES POINT GATE NOZZLES**

All interchangeable nozzles are similar, and differ only in size and material flow capacity. The information found below applies to the 625 series Point Gate Nozzles.

OPERATING PROCEDURE

The nozzles are supplied with a square (flat) coil equipped with a Type J Thermocouple. It is also recommended to use a DME closed Loop Temperature Controller for optimum temperature control. When Starting the Nozzle, set the controller to 10% voltage if using an open loop manual type or to 200° F if using a closed loop automatic type. In either case, this procedure will allow the heater to dissipate any moisture. Make sure you maintain this start-up setting for 15 minutes. Controller equipped with Step Start®, Smart Start® or other heater warm-up circuitry will cycle automatically. It is essential to use controllers with proper voltage and wattage capabilities. The voltage and wattage of each heater is clearly marked on the heater tag.

Step Start®, Smart Start® and DME® are all registered trademarks of DME Company.

DISASSEMBLY PROCEDURE

1. Place the nozzle in a vice using "V" Block, then secure it firmly at the nozzle head.
2. For removal of the tip from nozzle, a 1", six-point, deep-well socket is recommended. The nozzle must be at processing temperature and the heater should be turned off when removing tip counter-clockwise from the nozzle. If nozzle is still in the mold, the nozzle must be "keyed" to prevent wire damages.
3. Tip must be cleaned of any material before reassembling.
4. Remove the heater using a square coil heater wrench. Wrench is included with replacement heater.

ASSEMBLY PROCEDURE - "ALL PARTS MUST BE CLEAN"

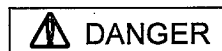
1. Nozzle body must be cleaned of any material in the seal-off area and threaded areas before reassembling.
2. Careful attention should be taken to the needle as damage could occur if needle is dropped or strike a rigid material. Treat needle like a glass or ceramic material.
3. Install the heater using a Square Coil Heater wrench (wrench included with replacement heater). After the heater is installed, it should cover the entire length of the nozzle body - stretch the heater by hand if necessary.
4. Apply an anti-seize compound on the tip threads.
5. Firmly screw the tip sub-assembly into the shank of the nozzle body. Tighten and untighten two or three times making sure there is good contact between the tip and the shank. Torque the tip sub-assembly into the nozzle body using 30+/- 5 ft-lbs. For protection of the tip sub-assembly, a 1", six-point, deep-well socket is recommended.
6. Careful attention should be taken to the heater and thermocouple leads as damage could occur when working on nozzle assembly.

7. Seal ring for nozzle body must be replaced each time nozzle body and/or manifold are removed to ensure seal-off. - Cat# EHR7156

8. Wait a minimum of 5 minutes after set point has been achieved for sufficient heat to transfer into the tip before molding.

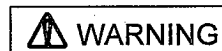
IMPORTANT SAFETY INFORMATION

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 electric power. It will damage the product and it can cause fire, severe injuries or even death. If green ground wire is 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 will 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.

WIRING INFORMATION

Square Coil Heaters are supplied with 2" prestripped 36" long leads. Heaters are 240 VAC.
2 power leads is GREEN.
Thermocouple is "J" Type.
Thermocouple is supplied with 36" 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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