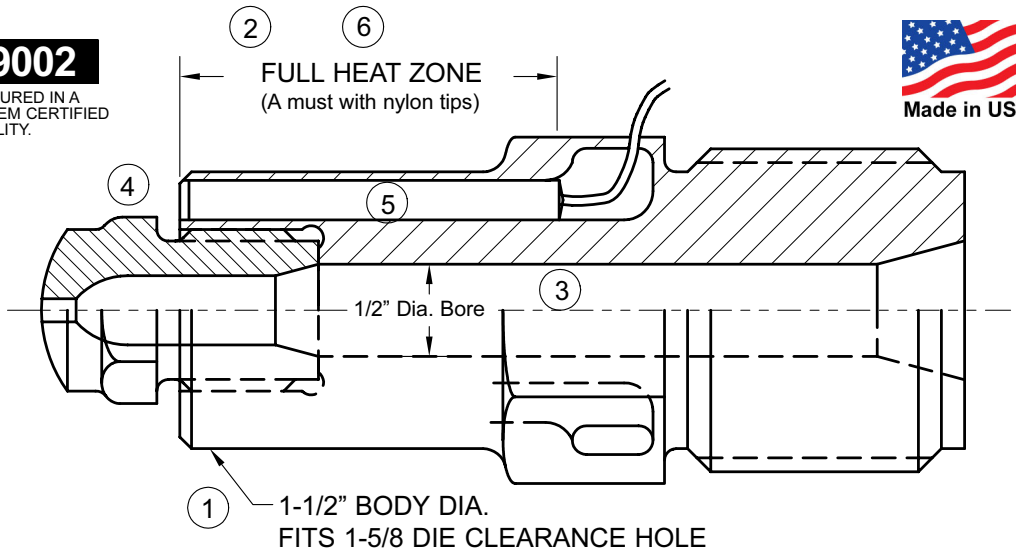
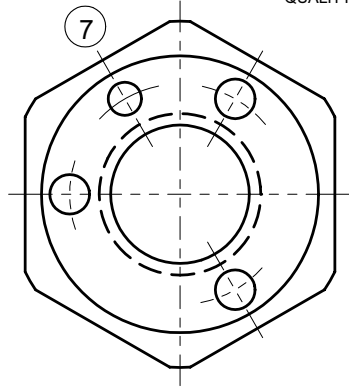




# FACTS ABOUT OUR CARTRIDGE HEATED NOZZLES: THE BEST SOLUTION FOR HIGH-TEMP ENGINEERED MATERIALS

**ISO-9002**  
MANUFACTURED IN A  
QUALITY SYSTEM CERTIFIED  
FACILITY.



## SAFER - MORE HEAT - BETTER CONTROL - SENSIBLE PRICES!

1. PPE Cartridge Heated Nozzles have a 1-1/2" body diameter designed to fit 1-5/8" die clearance hole. They reduce radiant heat loss common to external band heated nozzles. Their use is much safer as the heaters are not exposed to hot plastic which must be cleaned from external heater bands or shorting will result. The special high temperature lead wire is protected and exits through the nozzle hex further away from the business end. Our lead wires are small, flexible and have a higher temperature rating good to **1022°F**. For added lead wire protection use our fiberglass over sleeving.
  2. Full Heat Zone! Especially important when using nylon design tips. Other suppliers stop their heat at the rear of the nozzle tip, one source even drills through the RT nozzle threads.
  3. Full 1/2" internal bore to avoid unnecessary restriction of the plastic material! We put the heat closer to the melt where it belongs. Some competing designs reduce internal bore to 3/8" and 1/4".
  4. Designed to fit low cost industry standard RT tips. Some competing designs require a costly special tip not interchangeable with the industry standard removable tip design 7/8-14 thread 1/2" rear opening.
  5. With our cartridge heater design we have eliminated two causes of failure common to competing cartridge heated nozzles. (High wattage and lead wire failure.) Low watt density cartridge heaters are absolutely essential to give you the correct response to voltage increases on powerstats, and on-off switching of controllers. Other high watt density heaters are difficult to control and require higher amperage when they actually use 25 to 40% of the rated wattage. They cause rapid heat variations, material discoloration or burning, loss of control, unnecessary current consumption and extremely short heater life. Need more heat; add a forth heater or use a higher wattage premium cartridge heater from our stock list. PPE heaters outlast the others by a conservative 3 to 1 margin. Even if you're not using our nozzles, we recommend you use our heaters for accurate control and longer life.
  6. Maximum heated surface of our cartridge heaters gives uniform heat equally distributed over the heater surface less a very small zone on each end necessary to manufacture. Other designs have a 1" cold zone on the lead end further reducing your actual heat zone.
- DANGER!** Do not use standard cartridge heaters with crimp on leads, always use swaged-in leads only! We evaluated them thoroughly and found:
- a. The lead wire insulation won't stand up at high temperatures.
  - b. The crimp lug can short in the nozzle hole causing serious accidents.
  - c. The lower temperature rated lead wire will fail and come apart at the crimp with a minimum number of flexes.
  - d. The wattage is too high and cannot accurately control temperatures.
7. 3/16" diameter cartridge type thermocouple hole drilled between two heater holes is designed to accept our stock cartridge side sensing thermocouple. Thermocouple should be located near the nozzle tip, not back at the hex. Leads exit in the nozzle hex. Never use a standard T.C. located in the hex because it's location relative to the heat is not critical enough and many control problems will result. We know, we tried it.

- **SAVE using Cartridge Heaters and not costly Helix Coiled Heaters.**
- **SAVE by using lower cost Cartridge Heated RT Nozzle Bodies with RT Nozzle Tips.**
- **Achieves high temperatures.**
- **Cartridge Heated Nozzles put the heat closer to the melt.**
- **No external heater bands to contaminate.**
- **Avoids heater band abuse.**
- **Helix Coiled Heated Nozzles are also available.**



**PLASTIC PROCESS EQUIPMENT, INC.**

www.ppe.com • e-mail: sales@ppe.com

**PPE WEST** 6385 Montessouri Street, Las Vegas, Nevada 89113  
702-433-6385 • 800-258-8877 • Fax: 702-433-6388

**PPE SOUTH** 11218 Challenger Avenue, Odessa, Florida 33556  
727-834-8888 • 800-282-6783 • Fax: 727-834-8873

8303 CORPORATE PARK DRIVE, MACEDONIA (Cleveland), OHIO 44056, USA

Toll Free: USA, Canada & Mexico  
**800-362-0706**

**PPE** 216-367-7000 • Toll Free: 800-321-0562 • Fax: 216-367-7022 • Order Fax: 800-223-8305