PCS COMPANY
www.pcs-company.com

Emerald Hot Runner Systems

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When time and budget are limited, bring in the green!

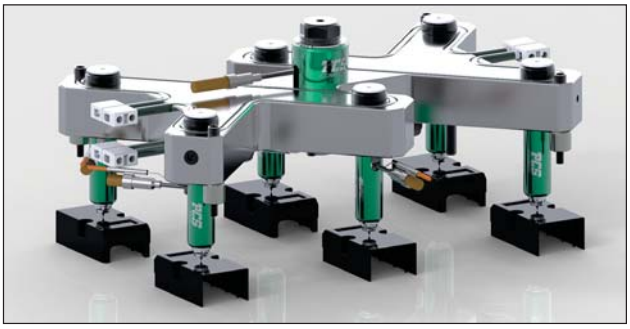
Emerald Hot Runner Systems

- Aggressive pricing
- Fast delivery
- Reliable proven designs
- Ideal for systems 8 drops or less

Emerald Hot Runner Systems

PCS Company hot runner systems are developed to offer the customer a competitive option to meet today's demanding delivery requirements. Every system is designed and constructed to ensure that customers have years of reliable performance.

The Emerald systems offers two thermal gate options: Classic & Threaded. Either option is ideal for eight drops or less.



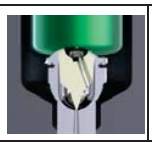
PCS Company Emerald Hot Runner Systems provide ease of design and ease of service. The Emerald Classic and the Emerald Threaded systems are designed to share common components, reducing replacement part inventory.

Affordability, reliability, & delivery; the three most critical success factors in any hot runner system. From initial design to daily use and routine maintenance, PCS Company Emerald Hot Runner Systems perform.

Classic Design

Threaded Design

Classic & Threaded Nozzle Selection Guide

																		
	Tip Style		**NOS**		**NOX**		**NPS**		**NPX**		**POS**		**PPS**		**PPX**		**ENX**	
	Flow Channel Diameter (mm)		5	7	5	7	5	7	5	7	5	7	5	7	5	7	5	7
	Gate Diameter (mm)		0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	0.6 -2.0	0.8 -3.0	1.5 -3.0	2.0 -4.0
Resin / Nozzle Selection Guide	**Low Viscosity**	Part Weight (grams)	200	420	200	420	200	420	200	420	350	620	350	620	350	620	350	620
		PP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		PS/PE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medium Viscosity	Part Weight (grams)	120	260	120	260	120	260	120	260	150	310	150	310	150	310	150	310
		ABS/SAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		POM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		PA6/PA66	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		PBT	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call
	High Viscosity	Part Weight (grams)	40	110	40	110	40	110	40	110	80	200	80	200	80	200	80	200
		PC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		PMMA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		PPO	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call
		PES/PEK	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call
		PPS/PEI	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call	Call

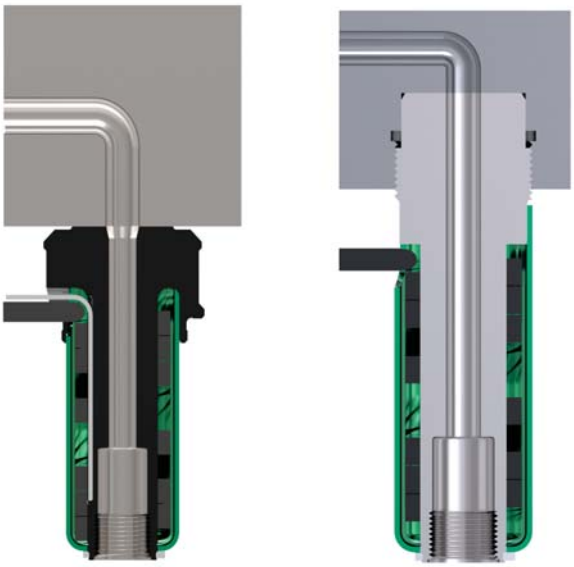
Call PCS Company

A technical discussion with a PCS Company Hot Runner Specialist will determine the appropriate nozzle/resin combination for your specific application.

Classic & Threaded Nozzle Selection Guide *(cont.)*

Emerald Classic
- Available Construction:
  - Complete Hot Half
  - Manifold and Components

Emerald Threaded
- Available Construction:
  - Complete Hot Half
  - Pre-Wired



Each Emerald System is supplied with:
- User manual
- 2D & 3D CAD files
- Customer specified connectors
- Nozzles offered with 5 mm or 7 mm flow channels
- Choice of tips for filled or unfilled resins
- Ceramic insulation technology used on all support pads
- Stainless Steel manifolds
- P20 or Stainless Steel hot half plates

Tip Styles:

NOS: Open Nut point tip style. Used for minimal gate vestige. TZM tip option for abrasive resins.

NOX: Open Nut style with extended point tip. Standard style only. Used for minimal gate vestige.

NPS: Bush Nut style with a point tip. TZM tip option for abrasive resins.

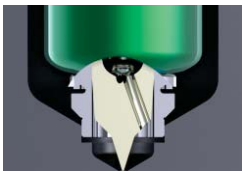
NPX: Extended Bush Nut style with point tip. Applications for gating on a contour or sprue. TZM tip option.

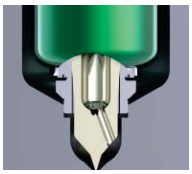
POS: Open Nut style with flow through tip. Open flow for minimal shear and good for recycled resins.

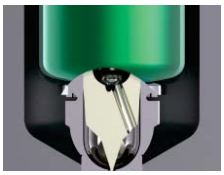
PPS: Bush Nut style with flow through tip. Open flow for minimal shear and good for recycled resins.

PPX: Extended Bush Nut style with flow through tip. Open flow for minimal shear and good for recycled resins.

ENX: Extended Sprue Nut style. Open flow design for less stress. Used for gating into runners

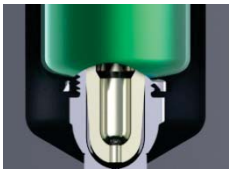

NOS


NOX


NPS


NPX


POS


PPS


PPX


ENX

Needles:
Our standard hardened copper alloy tips are suitable for all non-filled resins. The TZM needle is a wear resistant needle with excellent heat conductivity, and should be used with abrasive resins such as glass filled or mineral filled resins.

Emerald Ceramic Technology

With only 7% of the heat conductivity of steel, ceramic spacers make an exceptional insulator, which reduces heat loss and mold start up time. When used in manifold designs, ceramic insulation is superior to other materials, and provides incredible strength and support to ensure mold stability.

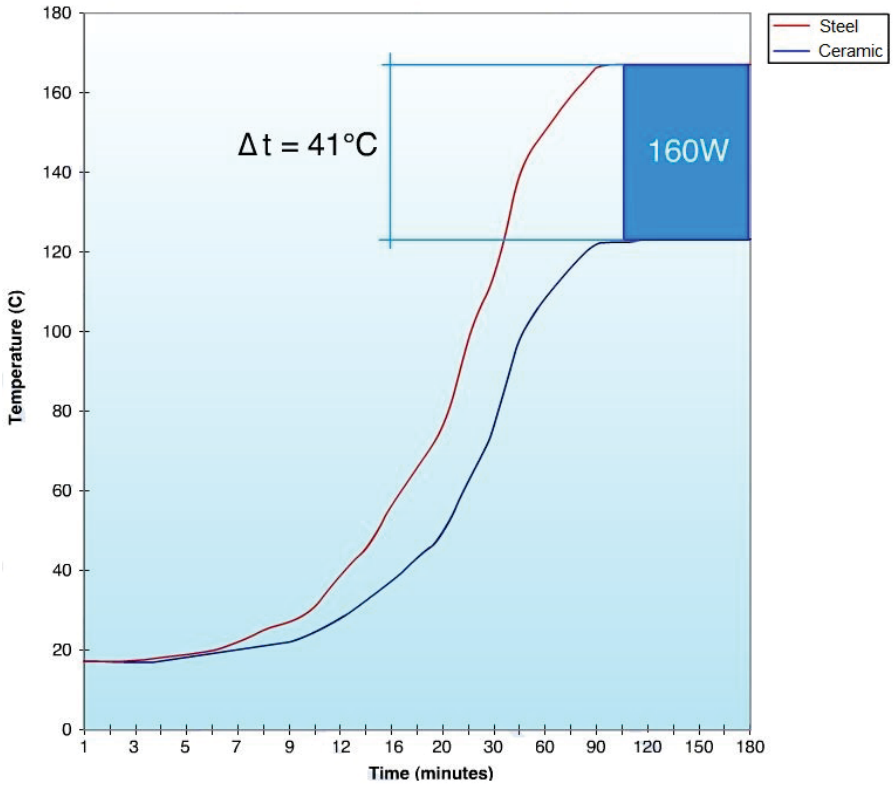
The Ceramic Difference

Ceramic spacers insulate the manifold from the hot runner plates. The reduced heat loss provides increased temperature control of the hot runner system, locking heat into the mold.

The diagram at the right shows the difference between the heat that is transferred from the hot runner manifold to the clamp plate when using steel spacers versus ceramic spacers.

One side of the test manifold used 4 steel spacers and the other side used 4 ceramic spacers.

Comparison of heat loss between Steel & Ceramic manifold spacers.



Custom Emerald Solutions

Hot Half Designs

Pre-Wired Designs

Manifold & Component Designs

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