



## VACUUM AND VENT BLOCK SIZING FORM

The following information is utilized to calculate the necessary evacuation area for the casting application and suggest an appropriate vacuum or vent block size. The accuracy of the information provided can affect results of the calculation. Where possible, providing us with a 3D part model will help to confirm needed data. Please note your units of measure.

UNITS OF MEASURE	English	Metric
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CUSTOMER AND TOOL INFORMATION		CASTING INFORMATION	
Date:	<input type="text"/>	No. of cavities:	<input type="text"/>
Company:	<input type="text"/>	Part weight (lbs.)(g):	<input type="text"/>
Contact Name:	<input type="text"/>	Through gate weight (part weight and overflows) (lbs. /g):	<input type="text"/>
Contact Phone:	<input type="text"/>	Shot weight (lbs.)(g):	<input type="text"/>
Contact Email:	<input type="text"/>	Gate thickness (in.)(mm):	<input type="text"/>
Part ID:	<input type="text"/>	Total gate area (in <sup>2</sup> )(mm <sup>2</sup> ):	<input type="text"/>
Tool Condition:	New      Retrofit	Slow shot speed (in/s) (m/s):	<input type="text"/>
System Requested:	Vacuum      Venting	Fast shot speed:(in/s) (m/s):	<input type="text"/>
		Cavity fill time(ms):	<input type="text"/>
		Casting alloy:	<input type="text"/>

DIE CAST MACHINE INFORMATION		HOT CHAMBER		COLD CHAMBER	
Manufacturer:	<input type="text"/>	Plunger diameter (in.) (mm):	<input type="text"/>	Diameter (in.) (mm):	<input type="text"/>
Model no.:	<input type="text"/>	Plunger stroke (in.) (mm):	<input type="text"/>	Length (in.) (mm):	<input type="text"/>
Tonnage:	<input type="text"/>	Goose neck length (in.) (mm):	<input type="text"/>		
Shot cylinder diameter (in.) (mm):	<input type="text"/>	Nozzle diameter (in.) (mm):	<input type="text"/>		
Hydraulic system pressure (psi) (bar):	<input type="text"/>				
Fast shot accumulator pressure (psi) (bar):	<input type="text"/>				
Dry shot speed (in.) (mm):	<input type="text"/>				

ADDITIONAL NOTES:

Midland Technologies utilizes PQ<sup>2</sup> methodology along with proprietary calculations to determine the required evacuation area for vacuum-assist or venting in a specific tool. Midland will provide a recommended exit runner design at no cost with the purchase of a Midland Valve-Less Vacuum or Ultimate Vent Blocks and the provision of a 2D tool layout.