

# Rheo-Pro® Hot Runner Gate Sizing

The size of the gate diameter depends on a number of factors. Their rating or influence is different for each application. The chart provides a guide line only. Please go through the check list below to determine the trend for selecting a smaller or larger gate orifice in relation to the average gate diameter shown in the middle row under gate dimensions.

- Step ① Select Gate Style
- Step ② Select Gate Diameter
- Step ③ Select Nozzle Type

②

①

		Gate Dimensions (mm)				
Tip Style	Bubble tip	0.8	←	1.4	→	2.5
	Flat tip	0.8	←	1.4	→	2.5
	Dimple Tip	0.8	←	1.4	→	2.5
	Stock Sprue	0.8	←	1.4	→	2.5
	Plunge Thru	1.5	←	2.5	→	3.5
	Bubble Valve	3.0	←	4.0	→	5.0
	Plunge Thru	3.0	←	4.0	→	5.0
Material	Structure	Amorphous		Semi-crystalline		Crystalline
	Molecular weight	Low		Medium		High
	Melt flow index	High		Medium		Low
	Reinforcements, Fillers	None		Low		High
	Additives, Flame retardants	None				Added
	Heat, Shear sensitivity	Not Recommended		Suitable		Recommended
	Solidification rate of material	Slow		Medium		Fast
Part	Shot weight	Low		Medium		High
	Wall thickness, Flow length	Small		Medium		Large
	Tolerances	High		Medium		Narrow
	Gate mark, Gate vestige	Best		Better		Good
	End use	Cosmetic				Technical
Process	Temperature window	Wide		Medium		Narrow
	Injection speed	Low		Medium		High
	Pressure drop created	High		Medium		Low
	Effect of holding pressure	Less		Normal		More

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