



With a shot capacity of 500 grams Ps, the precision LV250 is available with 4 tip styles and 11 lengths, making it ideally suited for most small-to-medium applications.

Precision LV250

PRECISION LV BUSHINGS

Maximum Shot Weight (Grams)

Sprue Gate	Gating on runners
Pp, Ps	500
LDPe, PVC-p, SAN	400
ABS, HDPe, Pa	300
PET, POM	150
PBT, Pc, PMMA, PPO	100

Ring Gate	Gating on parts with Witness Ring
Pp, Ps	500
LDPe, PVC-p, SAN	400
ABS, HDPe, Pa	300
PET, POM	150
PBT, Pc, PMMA, PPO	100

Collar Gate	Gating on parts without Witness Ring
Pp, Ps	500
LDPe, PVC-p, SAN	400
ABS, HDPe, Pa	300
PET, POM	150
PBT, Pc, PMMA, PPO	100

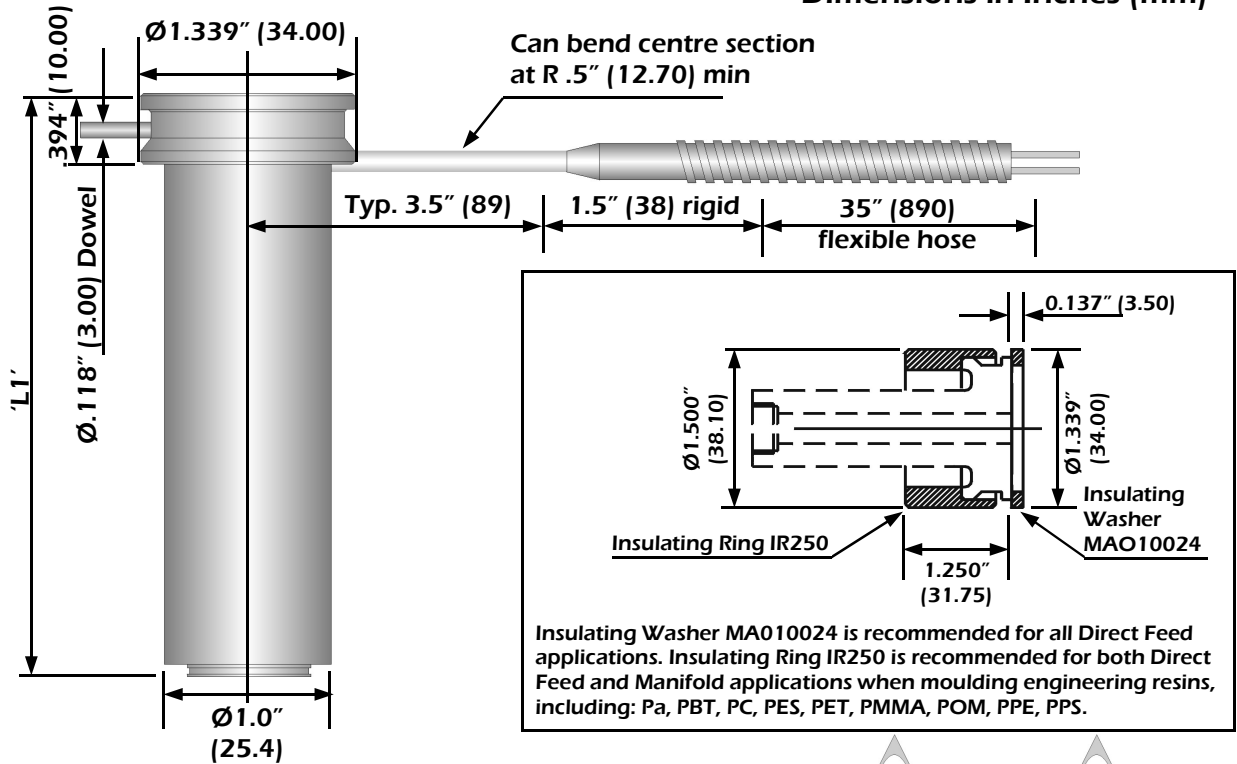
Note: Maximum shot weights may be reduced, depending on polymer grade & component dimensions.

Precision LV Series Technical Specifications

PRECISION LV BUSHINGS

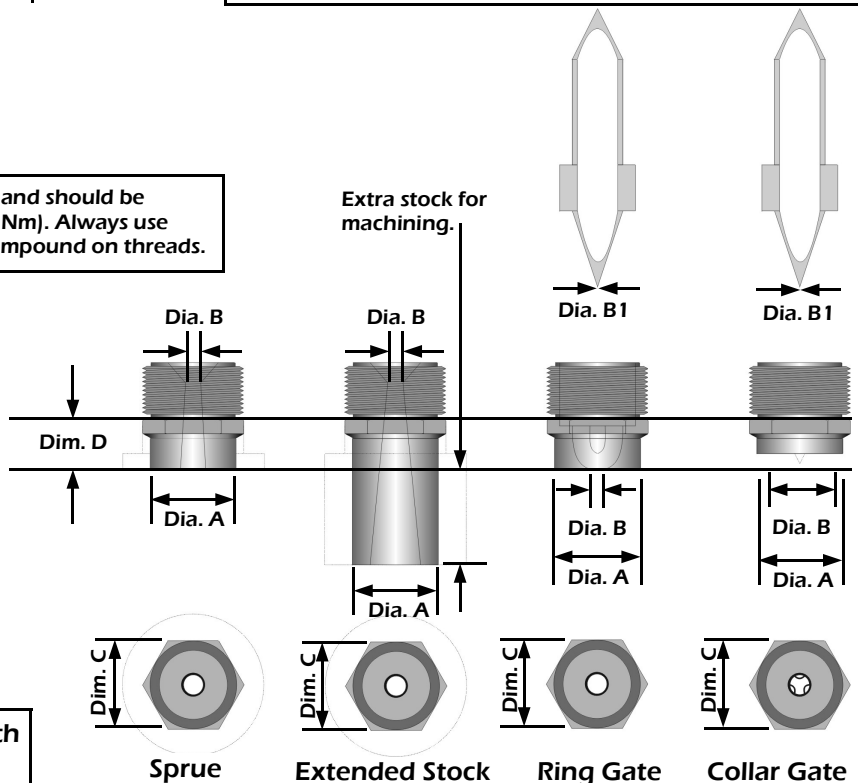
Precision LV250

Body Dimensions—Excluding Tip
Dimensions in Inches (mm)



Insulating Washer MAO10024 is recommended for all Direct Feed applications. Insulating Ring IR250 is recommended for both Direct Feed and Manifold applications when moulding engineering resins, including: Pa, PBT, PC, PES, PET, PMMA, POM, PPE, PPS.

Tips have 1/2" - 24 NS threads and should be torqued down to 30 ft. lbs (41 Nm). Always use high temperature anti-seize compound on threads.



Overall Bush Length
 $L' = L1 + D$

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Precision LV Series Technical Specifications

Precision LV250—Ordering Chart

Body & Heater Part Numbers	Body Assembly	Len. 'L1'	Spare Heater	Watts
	PLV250-02125	2.125" (53.98)	LPH19040C	295
	PLV250-02625	2.625" (66.68)	LPH19055D	350
	PLV250-03125	3.125" (79.38)	LPH19070D	350
	PLV250-03625	3.625" (92.08)	LPH19080E	400
	PLV250-04125	4.125" (104.78)	LPH19095E	400
	PLV250-04625	4.625" (117.48)	LPH19105F	460
	PLV250-05625	5.625" (142.88)	LPH19130F	460
	PLV250-06625	6.625" (168.28)	LPH19160G	610
	PLV250-07625	7.625" (193.68)	LPH19180G	610
	PLV250-08625	8.625" (219.08)	LPH19205H	690
	PLV250-09625	9.625" (244.48)	LPH19235H	690

Optional
 Insulating Ring IR250
 Insulating washer MA010024

Tip Part Numbers	Gate Style	Tip Alloy	Part Number	Dia. 'A'	Dia. 'B'	Dim. 'C'	Dim. 'D'
	Sprue	Standard	TP250100	0.500" (12.70)	0.081" (2.06)	0.625" (15.88)	0.375" (9.53)
		Standard	TP250101	0.750" (19.05)	0.081" (2.06)	0.812" (20.62)	0.375" (9.53)
		Standard	TP250102	1.000" (25.40)	0.081" (2.06)	1.125" (28.58)	0.375" (9.53)
	Extended	Standard	TP250200	0.500" (12.70)	0.081" (2.06)	0.625" (15.88)	1.125" (28.56)
		Standard	TP250201	0.750" (19.05)	0.081" (2.06)	0.812" (20.62)	1.125" (28.56)
		Standard	TP250202	1.000" (25.40)	0.081" (2.06)	1.125" (28.58)	1.125" (28.56)
	Ring Gate	Standard	TP250300	0.375" (9.53)	0.062" (1.57)	0.625" (15.88)	0.375" (9.53)
		Standard	TP250301	0.375" (9.53)	0.081" (2.06)	0.625" (15.88)	0.375" (9.53)
		Standard	TP250302	0.500" (12.70)	0.062" (1.57)	0.625" (15.88)	0.375" (9.53)
		Standard	TP250303	0.500" (12.70)	0.081" (2.06)	0.625" (15.88)	0.375" (9.53)
	Collar Gate	Standard	TP250400	0.375" (9.53)	0.250" (6.35)	0.625" (15.88)	0.375" (9.53)

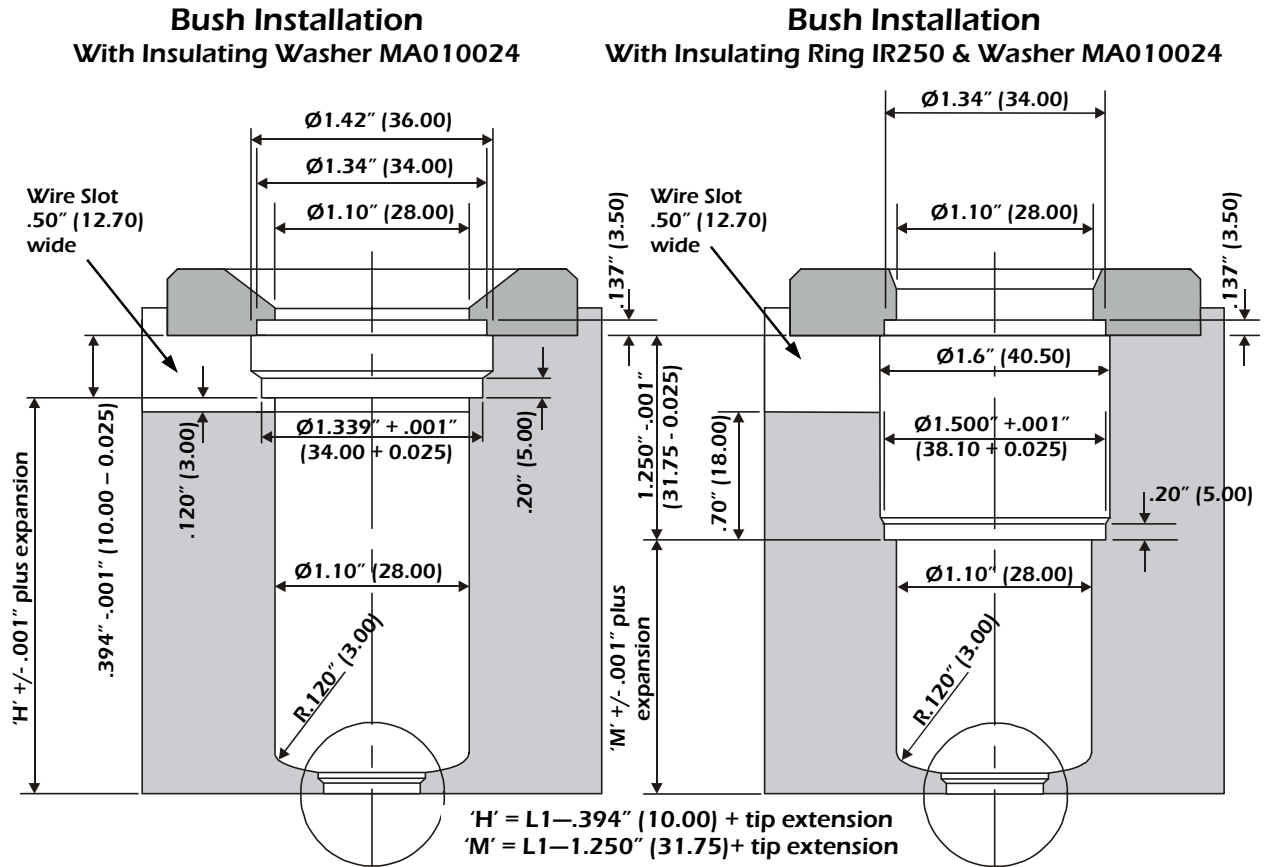
LV 250 Plus: Tip Part Numbers	Gate Style	Tip Alloy	Part Number	Dia. 'A'	Dia. 'B' / 'B1'	Dim. 'C'	Dim. 'D'	
	Sprue	Standard	TP250110	0.375" (9.53)	0.081" (2.06)	0.562" (14.27)	0.438" (11.13)	
		Wear Resist	TP250111	0.375" (9.53)	0.081" (2.06)	0.562" (14.27)	0.438" (11.13)	
	Extended	Standard	TP250210	0.375" (9.53)	0.081" (2.06)	0.562" (14.27)	0.938" (23.83)	
		Wear Resist	TP250211	0.375" (9.53)	0.081" (2.06)	0.562" (14.27)	0.938" (23.83)	
	Ring Gate	Standard	TP250410	0.375" (9.53)	0.020" (0.51)	0.562" (14.27)	0.438" (11.13)	
		Standard	TP250411	0.375" (9.53)	0.040" (1.02)	0.562" (14.27)	0.438" (11.13)	
		Standard	TP250412	0.375" (9.53)	0.070" (1.78)	0.562" (14.27)	0.438" (11.13)	
		Wear Resist	TP250413	0.375" (9.53)	0.020" (0.51)	0.562" (14.27)	0.438" (11.13)	
		Wear Resist	TP250414	0.375" (9.53)	0.040" (1.02)	0.562" (14.27)	0.438" (11.13)	
		Wear Resist	TP250415	0.375" (9.53)	0.070" (1.78)	0.562" (14.27)	0.438" (11.13)	
		Collar Gate	Standard	TP250416	0.375" (9.53)	0.020" (0.51)	0.562" (14.27)	0.438" (11.13)
			Standard	TP250417	0.375" (9.53)	0.040" (1.02)	0.562" (14.27)	0.438" (11.13)
	Standard		TP250418	0.375" (9.53)	0.070" (1.78)	0.562" (14.27)	0.438" (11.13)	
	Wear Resist		TP250419	0.375" (9.53)	0.020" (0.51)	0.562" (14.27)	0.438" (11.13)	
	Wear Resist		TP250420	0.375" (9.53)	0.040" (1.02)	0.562" (14.27)	0.438" (11.13)	
Wear Resist	TP250421		0.375" (9.53)	0.070" (1.78)	0.562" (14.27)	0.438" (11.13)		

Precision LV Series Technical Specifications

DIRECT FEED APPLICATIONS

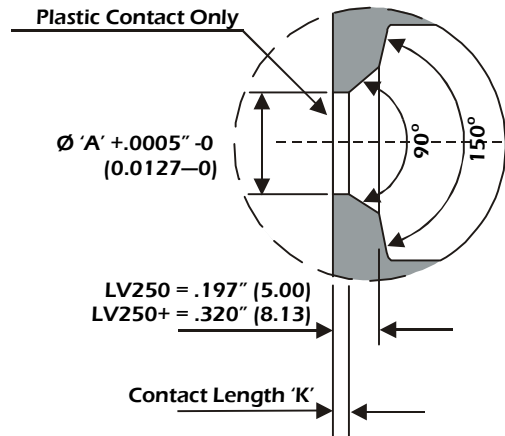
Precision LV250

Bore & Gate Dimensions = Inches (mm)

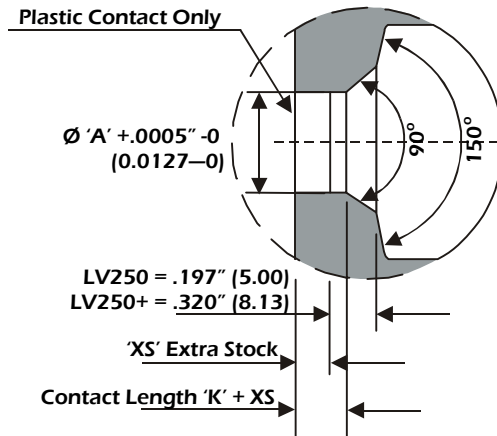


The thermal expansion of the bush relative to the mould is calculated by the formula:
 'H' x 0.0000126 x (melt temp. °C - mould temp. °C), where height 'H' = L1 - 0.394" (10.00) + tip extension.

Standard Sprue & Ring Gate



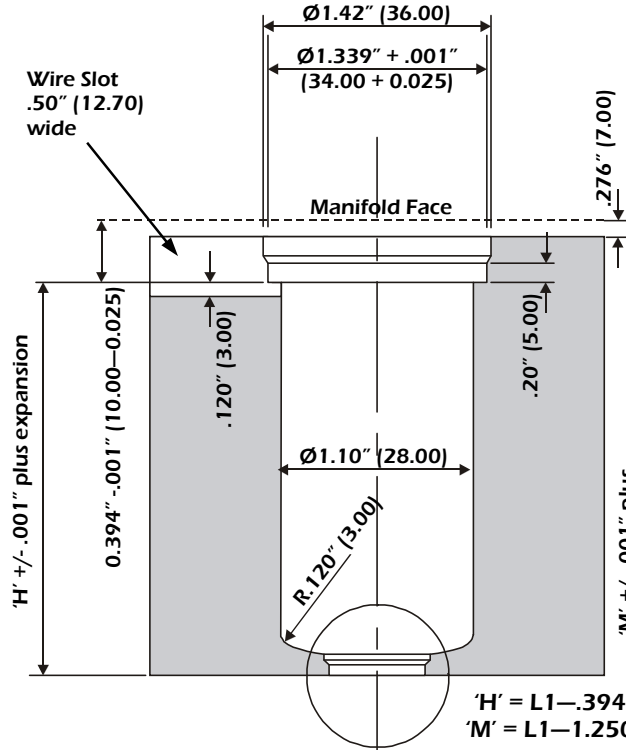
Extended Sprue



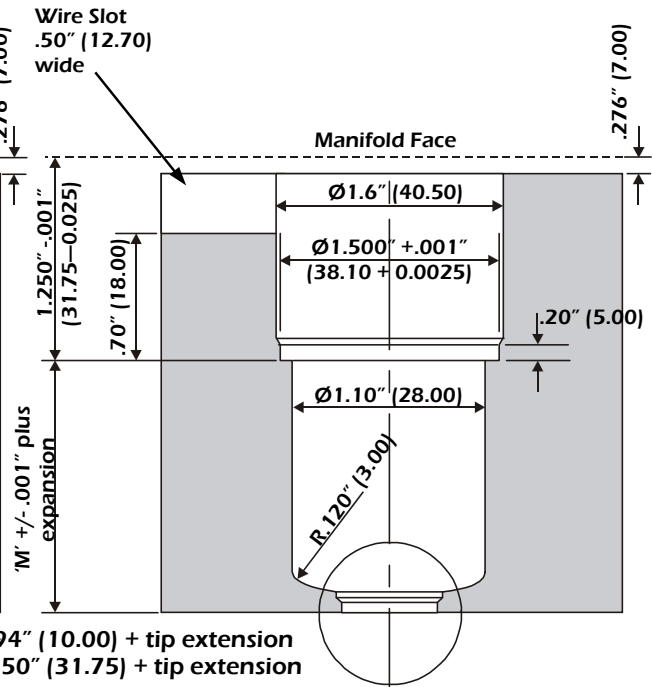
For Standard, Ring & Extended Sprue Gates
 'K' = .060" - .100" (1.5 - 2.5) for Crystalline resins
 'K' = .080" - .160" (2.0 - 4.0) for Amorphous resins
 Increase 'K' as 'A' increases

Precision LV250

Standard Bush Installation

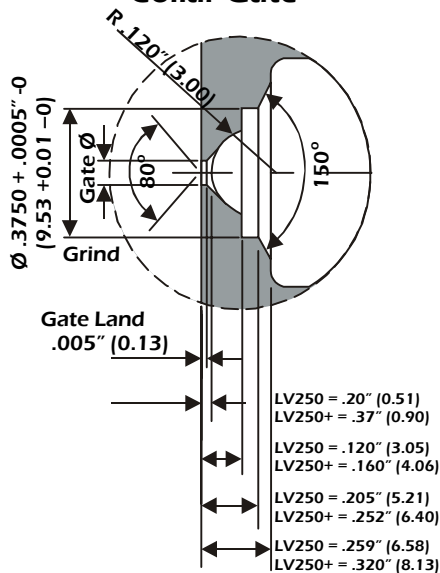


Bush Installation With Insulating Ring IR250

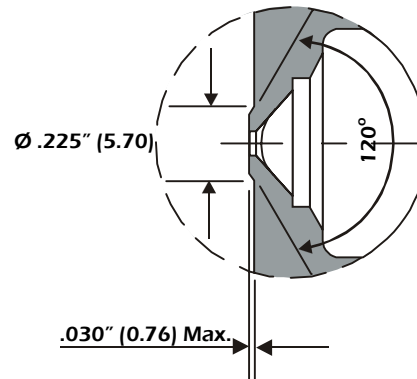


The thermal expansion of the bush relative to the mould is calculated by the formula:
 $\text{H}' \times 0.0000126 \times (\text{melt temp. } ^\circ\text{C} - \text{mould temp. } ^\circ\text{C})$, where height $\text{H}' = L1 - 0.394''$ (10.00) + tip extension.

Collar Gate



Recessed Gate



Precision LV Series Technical Specifications

PRECISION LV BUSHINGS

Precision LV250—Engineering Charts

250 & 250+ Series Resin Compatibility	Gating Options		Tip Alloy	Commodity Resin	Engineering Resin	Glass-Filled Resin	
	250 Series						
	Sprue	Standard	●	●	○		
	Extended Sprue	Standard	●	●	○		
	Ring Gate	Standard	●	●	○		
	Collar Gate	Standard	●	●	○		
	250+ Series						
	Sprue	Standard	●	●			
		Wear Resist	●	●	●		
	Extended Sprue	Standard	●	●			
	Wear Resist	●	●	●			
Ring Gate	Standard	●	●				
	Wear Resist	●	●	●			
Collar Gate	Standard	●	●				
	Wear Resist	●	●	●			

● = Recommended ○ = Possible

250 & 250+ Series Gate Diameters	Tip Type	Low Viscosity	Medium Viscosity	High Viscosity
	Sprue			
	All	.080" - .125" (2.0–3.2)	.080" - .125" (2.0–3.2)	.080" - .125" (2.0–3.2)
	Spreader Needle			
	Ring Gate .005" Flat	.060" - .080" (1.5–2.0)	.060" - .080" (1.5–2.0)	.080" - .114" (2.0–2.9)
	Collar Gate .005" Flat	.030" - .060" (0.8–1.5)	.060" - .080" (1.5–2.0)	.080" - .114" (2.0–2.9)
	Ring Gate .020" Flat	.040" - .060" (1.0–1.5)	.060" - .080" (1.5–2.0)	.080" - .114" (2.0–2.9)
	Collar Gate .020" Flat	.040" - .060" (1.0–1.5)	.060" - .080" (1.5–2.0)	.080" - .114" (2.0–2.9)
	Ring Gate .040" Flat	.060" - .080" (1.5–2.0)	.080" - .100" (2.0–2.5)	.100" - .134" (2.5–3.4)
	Collar Gate .040" Flat	.060" - .080" (1.5–2.0)	.080" - .100" (2.0–2.5)	.100" - .134" (2.5–3.4)
Ring Gate .070" Flat	.090" - .110" (2.3–2.8)	.110" - .132" (2.8–3.4)	.132" - .164" (3.4–4.2)	
Collar Gate .070" Flat	.090" - .110" (2.3–2.8)	.110" - .132" (2.8–3.4)	.132" - .164" (3.4–4.2)	

Tips are supplied with the smallest gate diameter—customer to re-machine if necessary for larger shot weights.

High viscosity = melt flow 0.5–6

Medium viscosity = melt flow 7–16

Low viscosity = melt flow > 16

Shot Weights	Resin Type	Shot Weight (grams)
	Pp, Ps	500
	LDPE, PVC-p, SAN	400
	ABS, HDPE, Pa	300
	PET, POM	150
	PBT, Pc, PMMA, PPO	100

These values are for reference purposes only. The values can be affected by the resin melt flow, part dimensions & wall thickness, mould & melt temperatures and the moulding conditions used.

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