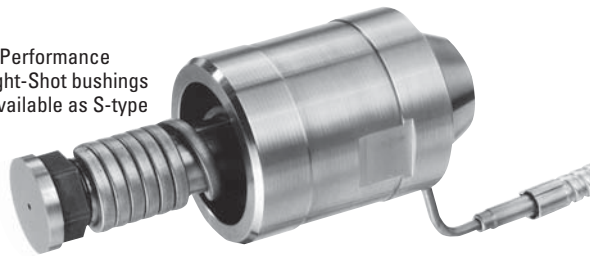


High-Performance Series Straight-Shot™

High-Performance Straight-Shot bushings are available as S-type



“S” Type (Standard Tip Configuration)

- .062 or .125 DIA. Tips with .08 Land area
- Seven shoulder lengths from 7/8 to 3 7/8
- .500 And .750 Spherical radius for machine nozzle
- Replaces conventional cold sprue bushings to reduce cycle time and save material costs
- Efficiently processes commodity or engineering grade resins
- Provides low vestige gate cosmetics (.062 or .125 Gate diameters available)
- High-watt density heater with distributed wattage to help prevent tip freeze-offs

NOTE:

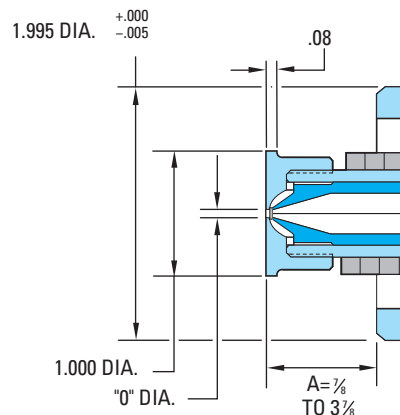
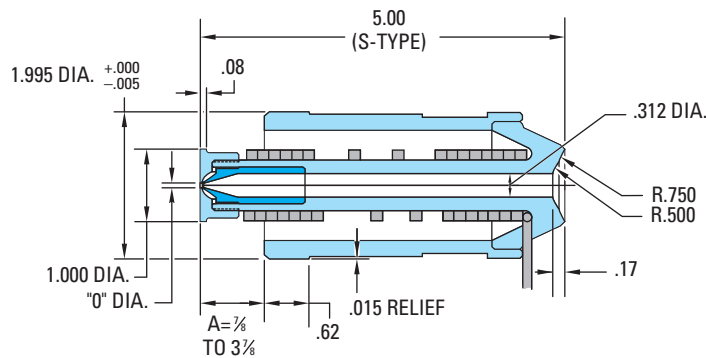
The expansion factor must be taken into consideration prior to machining for and installation of the bushing. This factor (BE) must then be added to the A dimension. The formula for determining this expansion factor is as follows:

$$BE = "A" \text{ dimension} \times 0.00000633 \times \text{nozzle set point} - 68^{\circ}\text{F}$$

(assuming the mold is at 68°F during operation). If mold temperature is different, substitute 68°F with actual mold temperature.

EXAMPLE:

Given a setpoint of 500°F:
 $BE = 1.375 \times .0000063 \times (500 - 68) = .004$ thus $1.375 + .004 = 1.379$.
 Please note that the above information is given as an example. Variations may occur based on mold configuration and cooling factor. In some instances, it may be necessary to obtain an empirical factor.

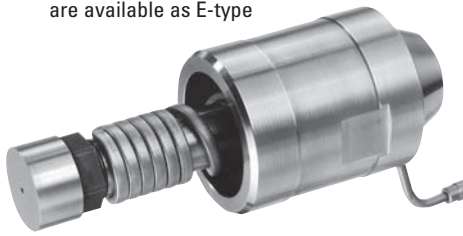


BUSHING ASSEMBLY				REPLACEMENT PARTS					
O DIA.	SHOULDER LENGTH A	BUSHING ASSEMBLY ITEM NUMBER	SHOULDER BUSHING ITEM NUMBER	TIP ITEM NUMBER	RETAINER ITEM NUMBER	BODY ITEM NUMBER	SPACER ITEM NUMBER	HEATER ITEM NUMBER	THERMOCOUPLE ITEM NUMBER
.062	7/8	HPS0607S2	HPS1007	HPT0001	HPT0601	HPS0001	HPT1001	HPS2001	HPS3001
	1 3/8	HPS0613S2	HPS1013						
	1 7/8	HPS0617S2	HPS1017						
	2 3/8	HPS0623S2	HPS1023						
	2 7/8	HPS0627S2	HPS1027						
	3 3/8	HPS0633S2	HPS1033						
	3 7/8	HPS0637S2	HPS1037						
.125	7/8	HPS1207S2	HPS1007	HPT0002	HPT1201	HPS0001	HPT1001	HPS2001	HPS3001
	1 3/8	HPS1213S2	HPS1013						
	1 7/8	HPS1217S2	HPS1017						
	2 3/8	HPS1223S2	HPS1023						
	2 7/8	HPS1227S2	HPS1027						
	3 3/8	HPS1233S2	HPS1033						
	3 7/8	HPS1237S2	HPS1037						

NOTE: High-Performance Series Straight-Shot Hot Sprue Bushings heater has voltage of 240 VAC, 700 watts. Thermocouple is “J” type.

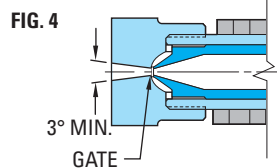
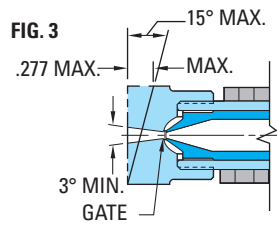
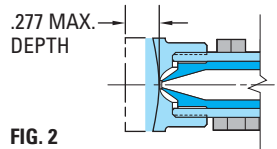
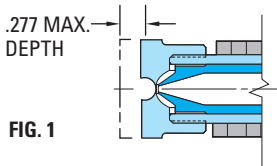
High-Performance Series Straight-Shot™

High-Performance Straight-Shot Bushings are available as E-type

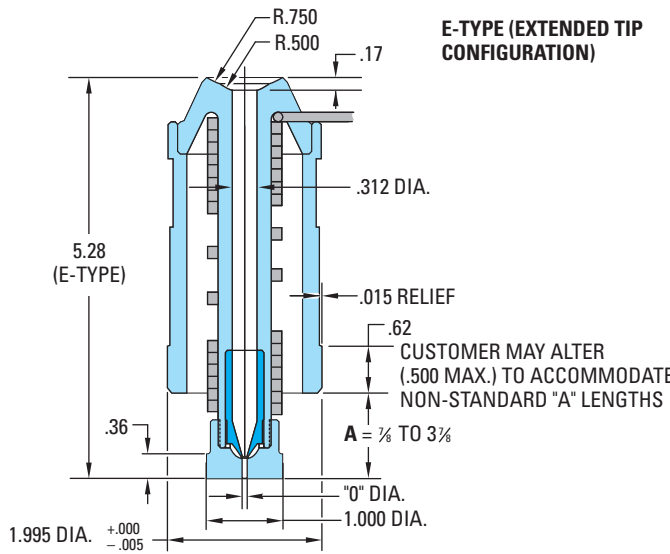


"E" Type (Extended Tip Configuration)

- Replaces conventional cold sprue bushings to reduce cycle time and save material costs
- Efficiently processes commodity or engineering grade resins
- High-watt density heater with distributed wattage to help prevent tip freeze-offs
- .062 or .125 DIA. Tips with .36 Land area for machining of molded part details
- Seven shoulder lengths from 7/8 to 3 3/8
- .500 And .750 Spherical radius for machine nozzle



Always machine runner or part contour to the .277 maximum depth at centerline of gate. However, do not weaken the bushing face by exceeding this maximum dimension (Figures 1 and 2). Always machine part contour to the .277 maximum depth at edge of retainer, with 15° maximum angle. Machine a 3° minimum taper to the gate diameter. This will result in a small sprue on the part being molded (Figure 3). Machine a 3° minimum taper to the gate for a reverse taper sprue on the part being molded (Figure 4). Retainer material is H-13 steel 46-52 HRC.



NOTE:

The expansion factor must be taken into consideration prior to machining for and installation of the bushing. This factor (BE) must then be added to the A dimension. The formula for determining this expansion factor is as follows:
 $BE = "A" \text{ dimension} \times 0.00000633 \times \text{nozzle set point} - 68^{\circ}F$ (assuming the mold is at 68°F during operation). If mold temperature is different, substitute 68°F with actual mold temperature.

EXAMPLE:

Given a setpoint of 500°F:
 $BE = 1.375 \times .0000063 \times (500 - 68) = .004$ thus $1.375 + .004 = 1.379$.
 Please note that the above information is given as an example. Variations may occur based on mold configuration and cooling factor. In some instances, it may be necessary to obtain an empirical factor.

Ø DIA.	SHOULDER LENGTH A	BUSHING ASSEMBLY ITEM NUMBER	SHOULDER BUSHING ITEM NUMBER	TIP ITEM NUMBER	RETAINER ITEM NUMBER	BODY ITEM NUMBER	SPACER ITEM NUMBER	HEATER ITEM NUMBER	THERMOCOUPLE ITEM NUMBER
.062	7/8	HPS0607E2	HPS2007	HPT0001	HPT0602	HPS0001	HPT1001	HPS2001	HPS3001
	1 3/8	HPS0613E2	HPS2013						
	1 7/8	HPS0617E2	HPS2017						
	2 3/8	HPS0623E2	HPS2023						
	2 7/8	HPS0627E2	HPS2027						
	3 3/8	HPS0633E2	HPS2033						
	3 7/8	HPS0637E2	HPS2037						
.125	7/8	HPS1207E2	HPS2007	HPT0002	HPT1202	HPS0001	HPT1001	HPS2001	HPS3001
	1 3/8	HPS1213E2	HPS2013						
	1 7/8	HPS1217E2	HPS2017						
	2 3/8	HPS1223E2	HPS2023						
	2 7/8	HPS1227E2	HPS2027						
	3 3/8	HPS1233E2	HPS2033						
	3 7/8	HPS1237E2	HPS2037						

NOTE: High-Performance Series Straight-Shot Hot Sprue Bushings heater has voltage of 240 VAC, 700 watts. Thermocouple is "J" type.