

ER-Series Straight-Shot™

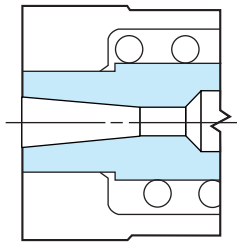
The D-M-E standard ER-Series Straight-Shot Hot Sprue Bushings (Long and Short Styles), like the standard E-Series, are supplied with a .25 inch extra stock allowance on the front face to permit machining of runner profiles or part contours into that face. These bushings feature a “reverse taper” design that originates from under the heat source, providing easier start-ups.

The ER-Series design can also be used when a reverse taper will benefit a particular application. These bushings are supplied with a .12 diameter orifice and a .50 long reverse taper. The orifice may be enlarged and the taper increased to suit.

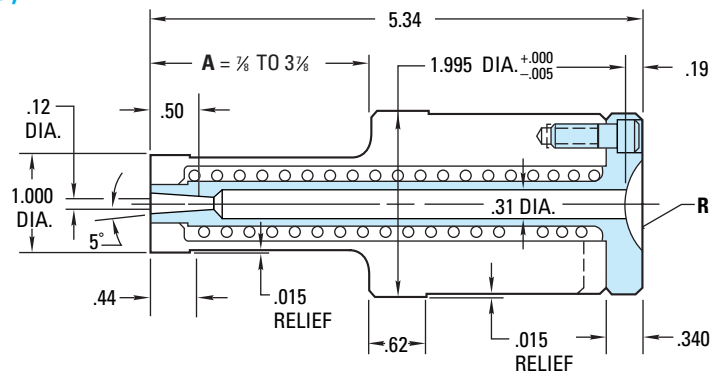


(Long Style)

ER-Series (Long Style)



ENLARGED VIEW AS SUPPLIED



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: $BE = 1.375 \times .0000063 \times (\text{nozzle setpoint} - 68^\circ\text{F})$.

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.

NOTE: For minimum projection on runner/part, alter the bushing face (See figures 1 thru 3 on p. 174).

ER-Series Straight-Shot (Long Style) Hot Sprue Bushings

R	WITH 120 VOLT HEATER	SHOULDER LENGTH A	WITH 240 VOLT HEATER
	ITEM NUMBER		ITEM NUMBER
1/2	SSBT-4507ER-1	7/8	SSBT-4507ER-2
	SSBT-4513ER-1	1 3/8	SSBT-4513ER-2
	SSBT-4517ER-1	1 7/8	SSBT-4517ER-2
	SSBT-4523ER-1	2 3/8	SSBT-4523ER-2
	SSBT-4527ER-1	2 7/8	SSBT-4527ER-2
	SSBT-4533ER-1	3 3/8	SSBT-4533ER-2
	SSBT-4537ER-1	3 7/8	SSBT-4537ER-2
3/4	SSBT-6507ER-1	7/8	SSBT-6507ER-2
	SSBT-6513ER-1	1 3/8	SSBT-6513ER-2
	SSBT-6517ER-1	1 7/8	SSBT-6517ER-2
	SSBT-6523ER-1	2 3/8	SSBT-6523ER-2
	SSBT-6527ER-1	2 7/8	SSBT-6527ER-2
	SSBT-6533ER-1	3 3/8	SSBT-6533ER-2
	SSBT-6537ER-1	3 7/8	SSBT-6537ER-2

The D-M-E Standard ER-Series Straight-Shot (Long Style) is available in seven standard shoulder lengths with either a 1/2" or 3/4" spherical radius and 120 or 240 volt heater. The ER-Series Straight-Shot (Long Style) can be retrofitted to suit the particular molding application.

NOTE: 5° heater lead is standard. For 90° lead, add "90" to end of item number (e.g., SSBT-4507ER-1-90).

ER-Series Straight-Shot™

The D-M-E Standard ER-Series Straight-Shot (Short Style) is intended to suit the requirements of smaller injection molding machines and is supplied with a $\frac{7}{8}$ " A dimension. The A dimension can be altered to suit the particular molding application.

NOTE: 5° heater lead is standard. For 90° lead, add "90" to end of item number (e.g., SSBT-4407ER-2-90).

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: $BE = 1.375 \times .0000063 \times (\text{nozzle setpoint} - 68^\circ\text{F})$.

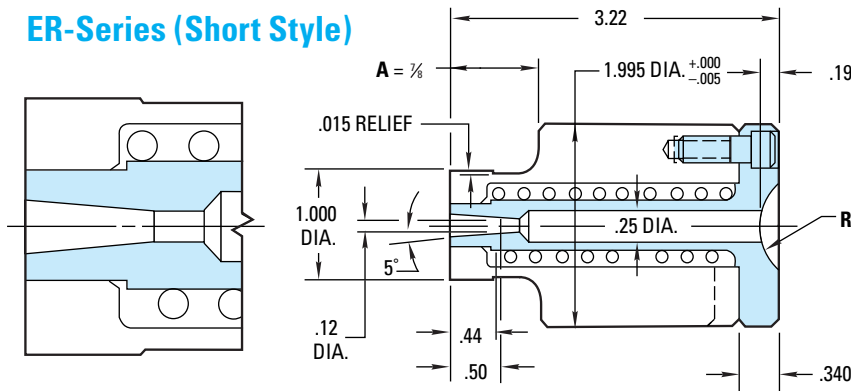
EXAMPLE:

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.

Short Style

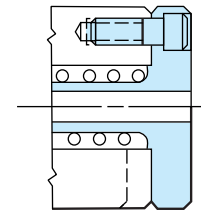
**ER-Series Straight-Shot Hot Sprue Bushings (Short Style)**

WITH 240 VOLT HEATER	R	A DIMENSION
ITEM NUMBER		
SSBT-4407ER-2	$\frac{1}{2}$	$\frac{7}{8}$
SSBT-0407ER-2	NONE	

ER-Series (Short Style)

ENLARGED VIEW AS SUPPLIED

SSBT-4407ER-2



SSBT-0407ER-2

NOTE:

For minimum projection on runner/part, alter the bushing face (See figures 1 through 3 below).

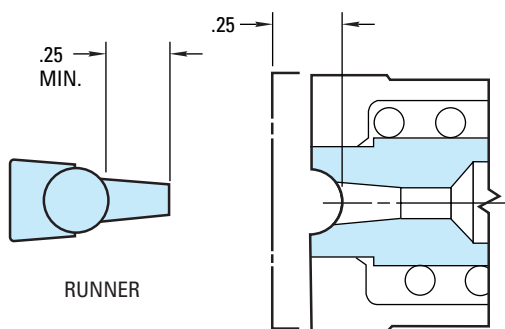
Design Guidelines for Altering ER-Series Straight-Shot Hot Sprue Bushings (Long and Short Styles)

FIG. 1

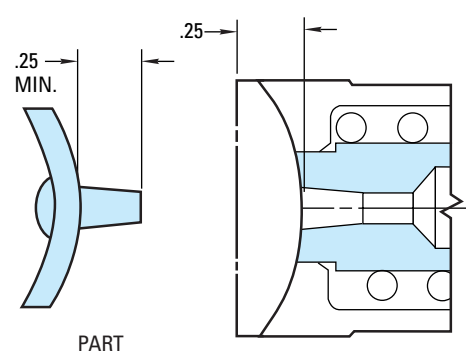


FIG. 2

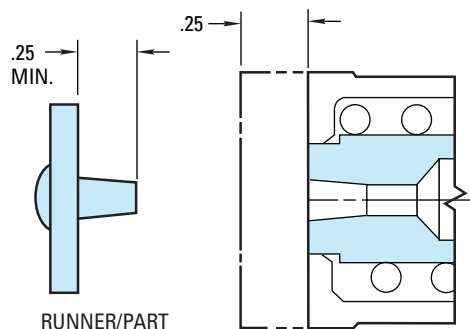


FIG. 3

For minimum projection on runner/part, machine the runner profile or part contour .25 inch deep into the bushing face at the centerline of the orifice (See Figures 1 and 2). When gating into a flat surface, remove the .25 inch extra stock allowance on the bushing face (See Figure 3). However, do not weaken the bushing face by exceeding the .25 inch dimension. The A dimension can be altered by removing stock from the front face of the 2.00 diameter bushing shoulder.