

Sprue Bushings

Sprue Bushings – A, B, LN and AR

S.A.E. 6145 Steel

Hardened, Ground and Polished

(HRC 43-45, except “LN” Series
– carburized .050-.060 deep to
HRC 60-62, drillable with carbide-
tipped drill.)

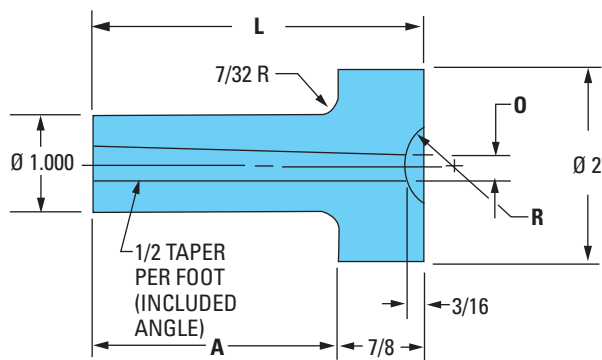


NOTE: 1/2" taper per foot = 2° 23' 13"
included angle.

WHEN ORDERING SPRUE BUSHINGS, PLEASE SPECIFY:

1. Quantity
2. Item Number
3. “O” and “R” dimensions
3. Method of shipment

“B” Series



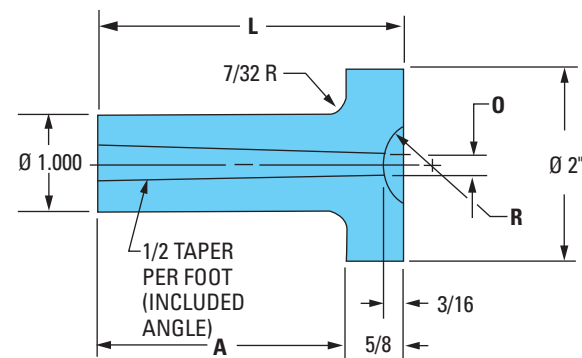
Available with $O \frac{5}{32}, \frac{7}{32}, \frac{9}{32}$ or $\frac{11}{32}$ $R \frac{1}{2}$ or $\frac{3}{4}$

ITEM NUMBER	A	L
B-6600	$\frac{29}{32}$	$\frac{125}{32}$
B-6601	$\frac{113}{32}$	$\frac{29}{32}$
B-6602	$\frac{129}{32}$	$\frac{225}{32}$
B-6603	$\frac{213}{32}$	$\frac{39}{32}$
B-6604	$\frac{229}{32}$	$\frac{325}{32}$
B-6605	$\frac{313}{32}$	$\frac{49}{32}$
B-6606	$\frac{329}{32}$	$\frac{425}{32}$
B-6607	$\frac{413}{32}$	$\frac{59}{32}$
B-6608	$\frac{429}{32}$	$\frac{525}{32}$
B-6610*	$\frac{529}{32}$	$\frac{625}{32}$
B-6612*	$\frac{629}{32}$	$\frac{725}{32}$

*B-6610: $O \frac{5}{32}$ $R \frac{3}{4}$

*B-6612: $O \frac{5}{32}$ $R \frac{3}{4}$ available on
special order.

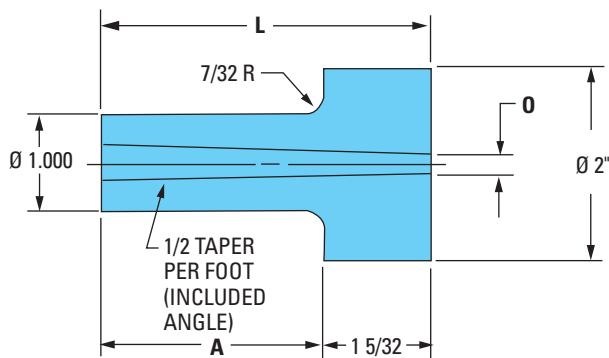
“A” Series



Available with $O \frac{5}{32}, \frac{7}{32}, \frac{9}{32}$ or $\frac{11}{32}$ $R \frac{1}{2}$ or $\frac{3}{4}$

ITEM NUMBER	A	L
A-6600	$\frac{13}{16}$	$\frac{113}{16}$
A-6601	$\frac{111}{16}$	$\frac{25}{16}$
A-6602	$\frac{23}{16}$	$\frac{213}{16}$
A-6603	$\frac{211}{16}$	$\frac{35}{16}$
A-6604	$\frac{33}{16}$	$\frac{313}{16}$
A-6605	$\frac{311}{16}$	$\frac{45}{16}$
A-6606	$\frac{43}{16}$	$\frac{413}{16}$

“LN” Series

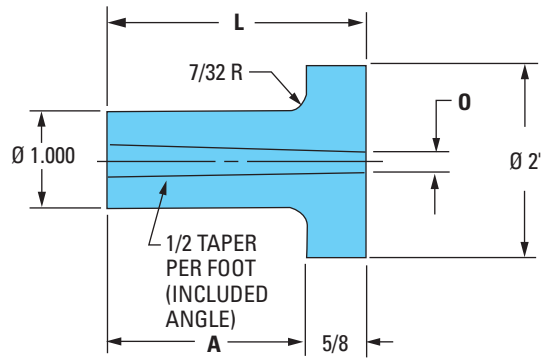


Available with $O \frac{5}{32}, \frac{7}{32}$ or $\frac{9}{32}$ R No spherical radius

ITEM NUMBER	A	L
LN-6600	$\frac{29}{32}$	$\frac{21}{16}$
LN-6601	$\frac{113}{32}$	$\frac{29}{16}$
LN-6602	$\frac{129}{32}$	$\frac{31}{16}$
LN-6603	$\frac{213}{32}$	$\frac{39}{16}$
LN-6604	$\frac{229}{32}$	$\frac{41}{16}$
LN-6605	$\frac{313}{32}$	$\frac{49}{16}$

$O \frac{11}{32}$ available on
special order.

“AR” Series



Available with $O \frac{5}{32}$ or $\frac{7}{32}$ R No spherical radius

ITEM NUMBER	A	L
AR-6600	$\frac{13}{16}$	$\frac{113}{16}$
AR-6601	$\frac{111}{16}$	$\frac{25}{16}$
AR-6602	$\frac{23}{16}$	$\frac{213}{16}$

$O \frac{9}{32}$ available on
special order.

Sprue Bushings

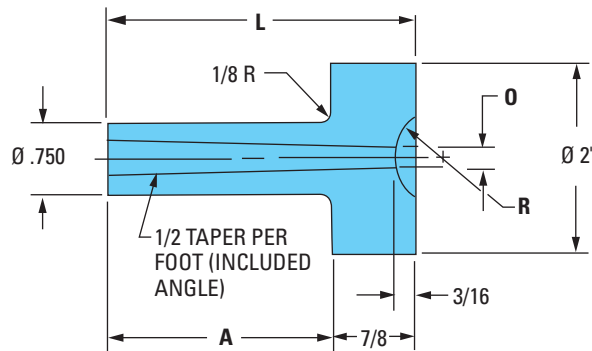
Sprue Bushings – U, UV, UR and L

S.A.E. 6145 Steel, HRC 43-45 Hardened, Ground and Polished

The wide range of Standard D-M-E Sprue Bushings allows mold to be installed in a variety of injection molding machines. The accuracy and interchangeability permit easy replacement if the mold is being transferred to another machine. It's wise to standardize ... on D-M-E Sprue Bushings.

NOTE: "W" series sprue bushings (Watson-Stillman) available on special order. Other special sprue bushings will be quoted on request per your specifications.

"U" Series – Newbury and Standard

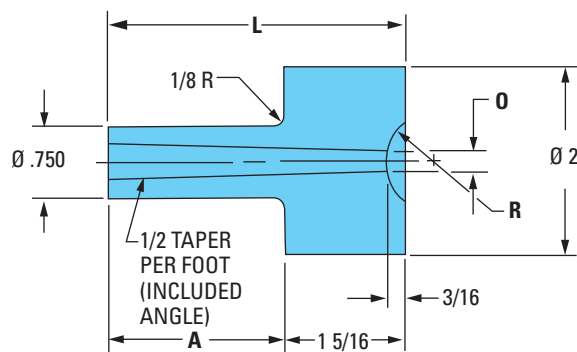


ITEM NUMBER	A	L
U-6600	$2^9/32$	$1^{25}/32$
U-6601	$1^{13}/32$	$2^9/32$
U-6602	$1^{29}/32$	$2^{25}/32$
U-6603	$2^{13}/32$	$3^9/32$
U-6604	$2^{29}/32$	$3^{25}/32$

Available with

O $5/32$, $7/32$ or $9/32$ **R** $1/2$ or $3/4$

"UV" Series – Van Dorn and Moslo



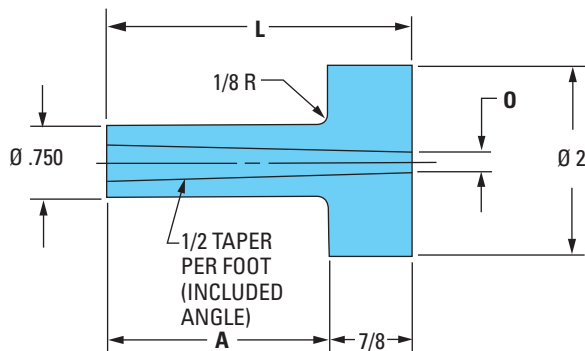
ITEM NUMBER	A	L
UV-6600	$2^9/32$	$2^7/32$
UV-6601	$1^{13}/32$	$2^{23}/32$
UV-6602	$1^{29}/32$	$3^7/32$
UV-6603	$2^{13}/32$	$3^{23}/32$
UV-6604	$2^{29}/32$	$4^7/32$

Available with

O $5/32$, $7/32$ or $9/32$ **R** $1/2$

R $3/4$ available on special order

"UR" Series – Arburg



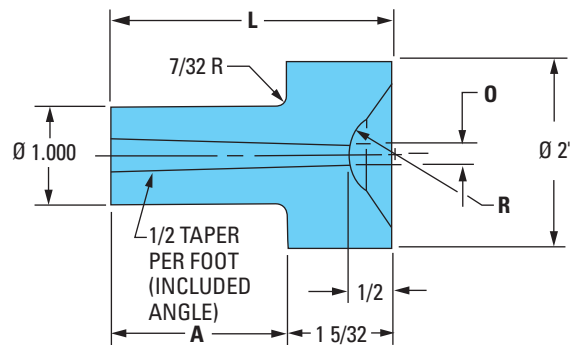
ITEM NUMBER	A	L
UR-6600	$2^9/32$	$1^{25}/32$
UR-6601	$1^{13}/32$	$2^9/32$
UR-6602	$1^{29}/32$	$2^{25}/32$
UR-6603	$2^{13}/32$	$3^9/32$
UR-6604	$2^{29}/32$	$3^{25}/32$

Available with

O $5/32$, $7/32$ or $9/32$

R No spherical radius

"L" Series



ITEM NUMBER	A	L
L-6600	$2^9/32$	$2^1/16$
L-6601	$1^{13}/32$	$2^9/16$
L-6602	$1^{29}/32$	$3^1/16$
L-6604	$2^{29}/32$	$4^1/16$
L-6606	$3^9/32$	$5^1/16$
L-6612*	$6^9/32$	$8^1/16$

Available with

O $5/32$, $7/32$ or $9/32$

R $1/2$

O $11/32$ available on special order

R $3/4$ available on special order

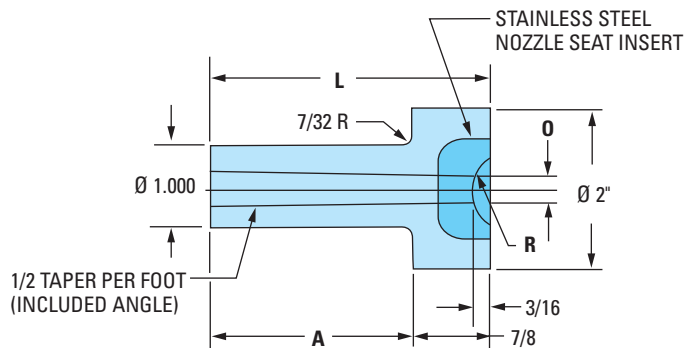
*L-6612: **O** $5/32$ available on special order

Performance Sprue Bushings®

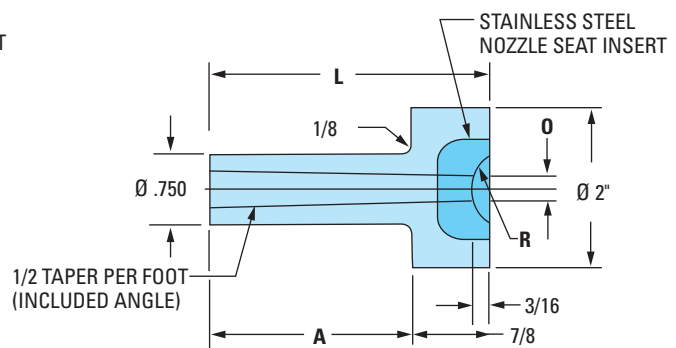
High-conductivity, corrosion-resistant, copper-based alloy bushing body with hardened 420 stainless steel nozzle seat insert

- Reduces sprue cooling time and cycle time
- Helps prevent sprue sticking or break-off within bushing
- Stainless steel nozzle seat provides wear resistance and insulates to reduce transference of heat from machine nozzle to the sprue area
- PSB Series is directly interchangeable with existing D-M-E "B" Series steel sprue bushings
- PSU Series is directly interchangeable with existing D-M-E "U" Series steel sprue bushings
- Reduces the need for water lines in the sprue area
- Reduces scrap caused by contact between hot sprue and finished parts on conveyor belt or drop chute area
- Provides a more rigid sprue for robotic part removal

"PSB" Series with a 1.000" Diameter Stem (Interchangeable with D-M-E "B" Series Sprue Bushings)



"PSU" Series with a .750" Diameter Stem (Interchangeable with D-M-E "U" Series Sprue Bushings)



ITEM NUMBER	A	L	O	R
PSB-0251	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSB-0253	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSB-0271	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSB-0273	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSB-0291	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSB-0293	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSB-0451	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSB-0453	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSB-0471	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSB-0473	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSB-0491	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSB-0493	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSB-0651	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSB-0653	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSB-0671	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSB-0673	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSB-0691	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSB-0693	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSB-0851	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSB-0853	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSB-0871	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSB-0873	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSB-0891	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSB-0893	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄



U.S. Patent No. 4,950,154

Performance Sprue Bushings®
is a registered trademark of
Performance Alloys & Services, Inc.

**WHEN ORDERING,
PLEASE SPECIFY:**
1. Quantity
2. Item Number (which
indicates "O" and
"R" dimensions)
3. Method of shipment

ITEM NUMBER	A	L	O	R
PSU-0251	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSU-0253	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSU-0271	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSU-0273	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSU-0291	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSU-0293	1 ²⁹ / ₃₂	2 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSU-0451	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSU-0453	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSU-0471	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSU-0473	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSU-0491	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSU-0493	2 ²⁹ / ₃₂	3 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSU-0651	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSU-0653	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSU-0671	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSU-0673	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSU-0691	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSU-0693	3 ²⁹ / ₃₂	4 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄
PSU-0851	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	5 ⁵ / ₃₂	1 ¹ / ₂
PSU-0853	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	5 ⁵ / ₃₂	3 ³ / ₄
PSU-0871	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	7 ⁷ / ₃₂	1 ¹ / ₂
PSU-0873	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	7 ⁷ / ₃₂	3 ³ / ₄
PSU-0891	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	9 ⁹ / ₃₂	1 ¹ / ₂
PSU-0893	4 ²⁹ / ₃₂	5 ²⁵ / ₃₂	9 ⁹ / ₃₂	3 ³ / ₄

NOTE: All dimensions are specified in inches.

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Performance Sprue Bushings®

When High Performance is Mandatory, Performance Sprue Bushings® are in the Mold

Consistently recommended by a wide range of resin manufacturers, molders, moldmakers, designers and engineers, Performance Sprue Bushings® have a long-standing reputation as a product that exceeds expectations. Many users are so pleased with the overall performance of this product that Performance Sprue Bushings are now specified in all of the molds they build.

Here are several benefits of the Performance Sprue Bushing that users rave about:

Property Comparisons: Performance Sprue Bushings' Copper Alloy and Steel Sprue Bushings Materials

MATERIAL	THERMAL CONDUCTIVITY AT 68°F BTU/(ft_hr_°F)	THERMAL DIFFUSIVITY AT 68°F ft²/hr
COPPER ALLOY	150	2.32
P20 TOOL STEEL	20	0.39
H13 TOOL STEEL	17	0.31

- **Reduced sprue cooling and overall cycle time**

Mold cycles are often limited or controlled by the length of time needed for solidification of the plastic sprue since it must be cool enough not to break or tear as the mold opens. This cycle limiting condition changes by using the Performance Sprue Bushing – without any other changes to the mold.

- **Helps prevent sprue sticking, break-off and corrosion**

With conventional steel sprue bushings, many plastic resins, additives, colorants and combinations lead to corrosion and sticking problems. The inherent corrosion resistance and release properties of the copper alloy used in the Performance Sprue Bushing results in a significant increase in performance and product life compared to conventional steel sprue bushings.

- **Yields more rigid sprues with reduced sprue cool time for robotic removal of parts**

The sprue is often used as the grab point in robotic removal of parts, sprues and runners. This requires that the sprue be rigid enough to resist the pressure of the robot fingers as well as the extraction forces. With conventional steel sprues, this often means added cooling time to the mold cycle. The Performance Sprue Bushing reducing sprue cool time, again without any other changes to the mold.

- **Molding problems caused by sprues are eliminated**

Molders that use Performance Sprue Bushings in a variety of mold and resin applications say that they are able to control many sprue-related problems. As one molder who uses the product said, "I no longer struggle with sprue problems."

Performance Sprue Bushings are available in a number of popular standard sizes (see table on facing page), and as non-standards with quick delivery. Contact D-M-E with your next application to reduce sprue cooling and cycle time.

