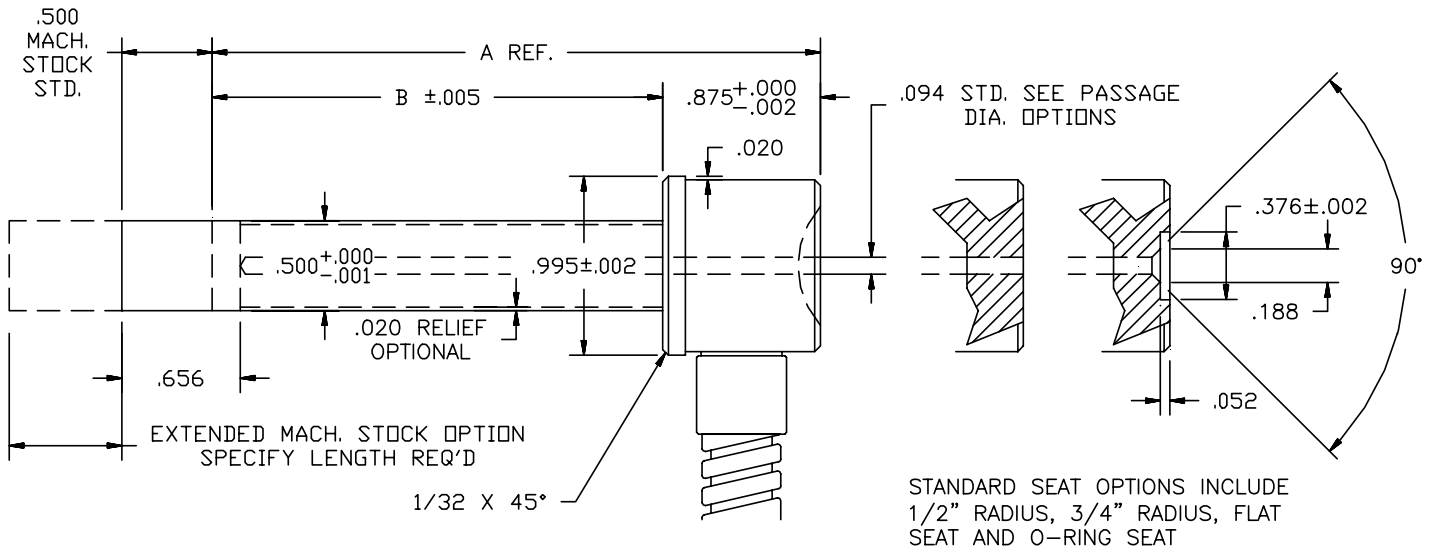


**"SOLUTION" 500 Center-Feed Sprue Gate Bushings And Options**



Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

Melt Passage Dia. Options	Availability	Option Code
.094 Dia. Low Flow	Stock	L
.125 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
.995 Diameter +/- .002	Stock	A
.870 Diameter +/- .002	Stock	B

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90

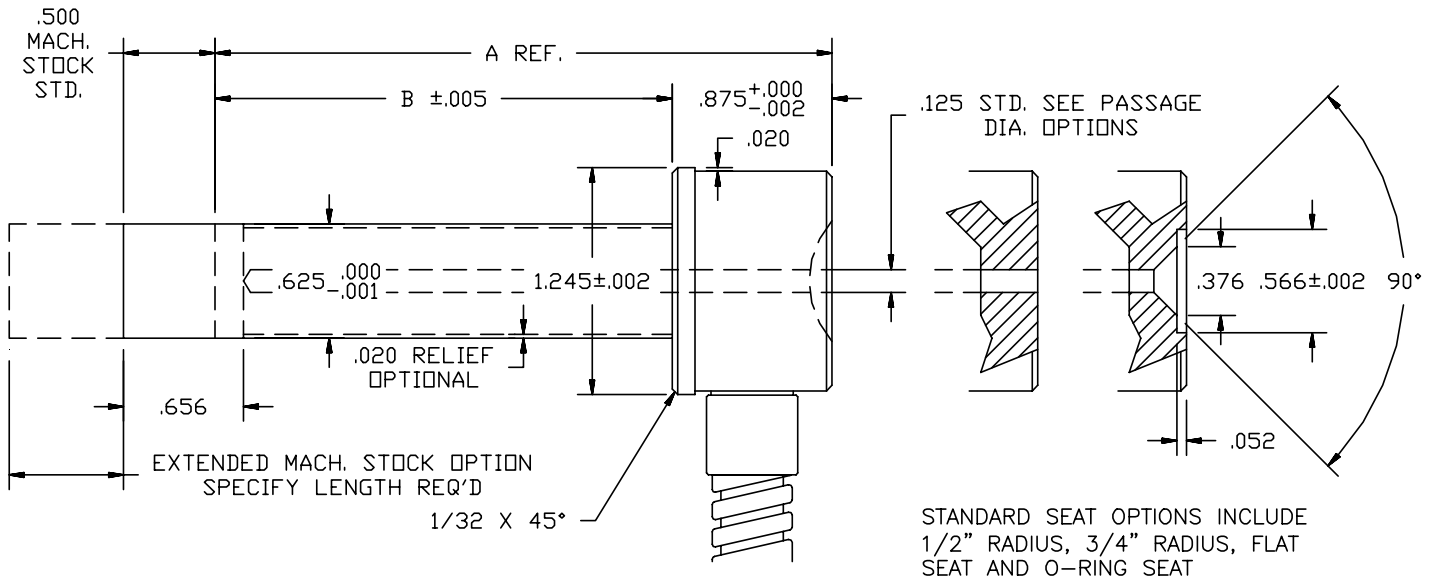
**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

**B M R50 - 500 - 2.375 - L A A90**

Tip Option \_\_\_\_\_  
Seat Option \_\_\_\_\_  
Passage Option \_\_\_\_\_  
Lead Option \_\_\_\_\_  
Head Option \_\_\_\_\_

Product Number	A Dim.	B Dim.	Watts
BMR50-500-2.375-LAA90	2.375	1.500	225
BMR50-500-2.875-LAA90	2.875	2.000	250
BMR50-500-3.375-LAA90	3.375	2.500	280
BMR50-500-3.875-LAA90	3.875	3.000	305
BMR50-500-4.375-LAA90	4.375	3.500	335
BMR50-500-4.875-LAA90	4.875	4.000	360

## "SOLUTION" 625 Center-Feed Sprue Gate Bushings And Options



STANDARD SEAT OPTIONS INCLUDE  
1/2" RADIUS, 3/4" RADIUS, FLAT  
SEAT AND O-RING SEAT

Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

Melt Passage Dia. Options	Availability	Option Code
.125 Dia. Low Flow	Stock	L
.156 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.245 Diameter +/- .002	Stock	A
1.495 Diameter +/- .002	Stock	B

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

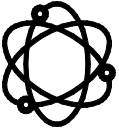
**B M R50 - 625 - 2.375 - L A A90**

Tip Option ————  
Seat Option ————

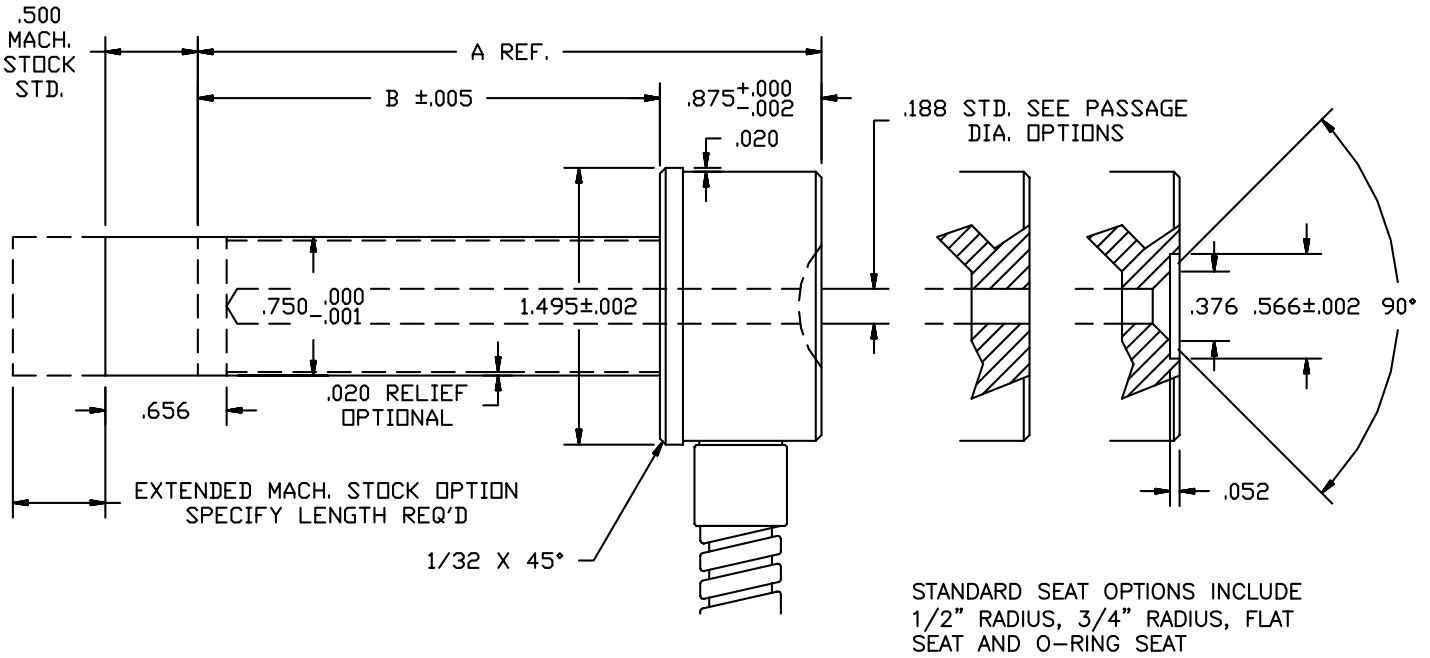
Passage Option ————

Lead Option ————  
Head Option ————

Product Number	A Dim.	B Dim.	Watts
BMR50-625-2.375-LAA90	2.375	1.500	225
BMR50-625-2.875-LAA90	2.875	2.000	250
BMR50-625-3.375-LAA90	3.375	2.500	275
BMR50-625-3.875-LAA90	3.875	3.000	300
BMR50-625-4.375-LAA90	4.375	3.500	325
BMR50-625-4.875-LAA90	4.875	4.000	350



**"SOLUTION" 750 Center-Feed Sprue Gate Bushings And Options**



Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

**B M R50 - 750 - 2.375 - L A A90**  
 Tip Option ———— Passage ———— Lead Option ————  
 Seat Option ———— Option ———— Head Option ————

Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

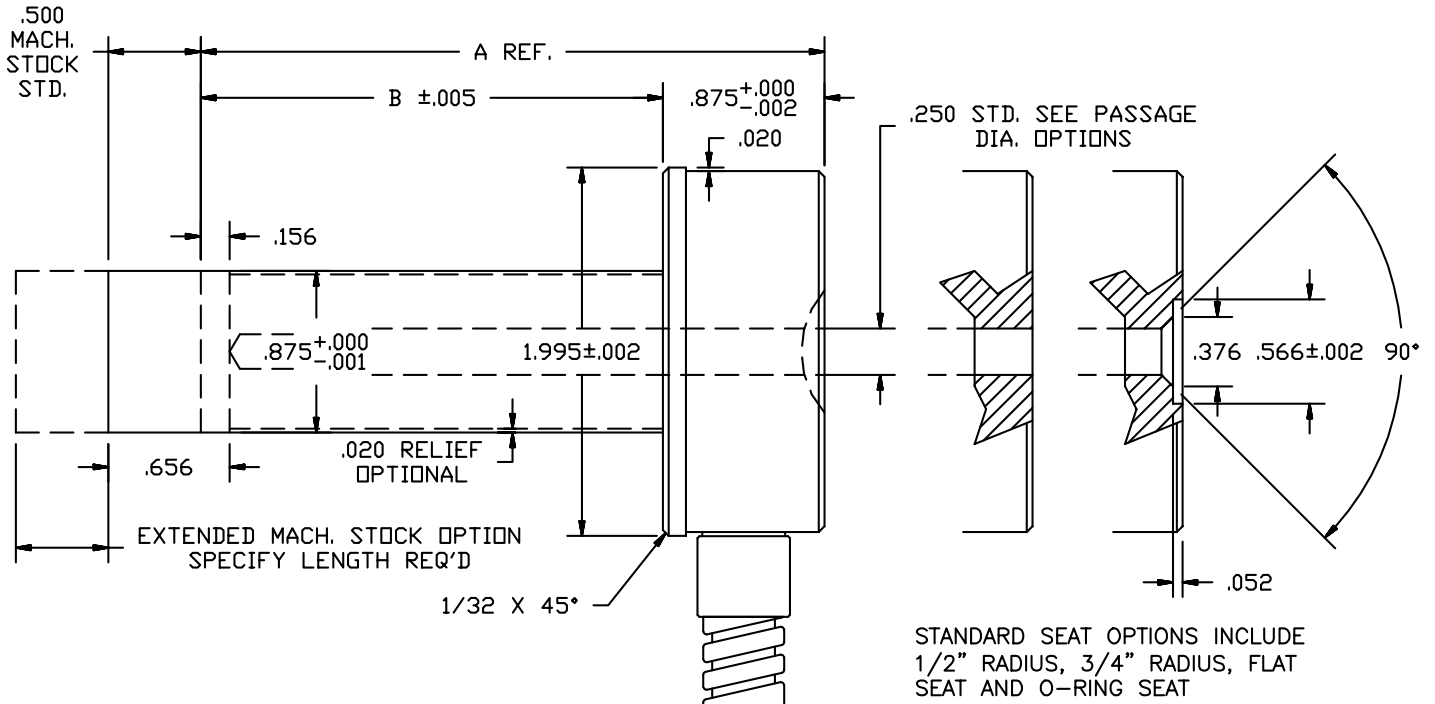
Product Number	A Dim.	B Dim.	Watts
BMR50-750-2.375-LAA90	2.375	1.500	300
BMR50-750-2.875-LAA90	2.875	2.000	330
BMR50-750-3.375-LAA90	3.375	2.500	360
BMR50-750-3.875-LAA90	3.875	3.000	385
BMR50-750-4.375-LAA90	4.375	3.500	415
BMR50-750-4.875-LAA90	4.875	4.000	445
BMR50-750-5.375-LAA90	5.375	4.500	475
BMR50-750-5.875-LAA90	5.875	5.000	505

Melt Passage Dia. Options	Availability	Option Code
.188 Dia. Low Flow	Stock	L
.219 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.495 Diameter +/- .002	Stock	A
1.995 Diameter +/- .002	Stock	B

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90

## "SOLUTION" 875 Center-Feed Sprue Gate Bushings And Options



Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

### **B M R50 - 875 - 2.375 - L A A90**

Tip Option       Passage       Lead Option   
 Seat Option       Option       Head Option

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

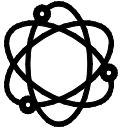
Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

Product Number	A Dim.	B Dim.	Watts
BMR50-875-2.375-LAA90	2.375	1.500	300
BMR50-875-2.875-LAA90	2.875	2.000	330
BMR50-875-3.375-LAA90	3.375	2.500	360
BMR50-875-3.875-LAA90	3.875	3.000	385
BMR50-875-4.375-LAA90	4.375	3.500	415
BMR50-875-4.875-LAA90	4.875	4.000	445
BMR50-875-5.375-LAA90	5.375	4.500	475
BMR50-875-5.875-LAA90	5.875	5.000	505

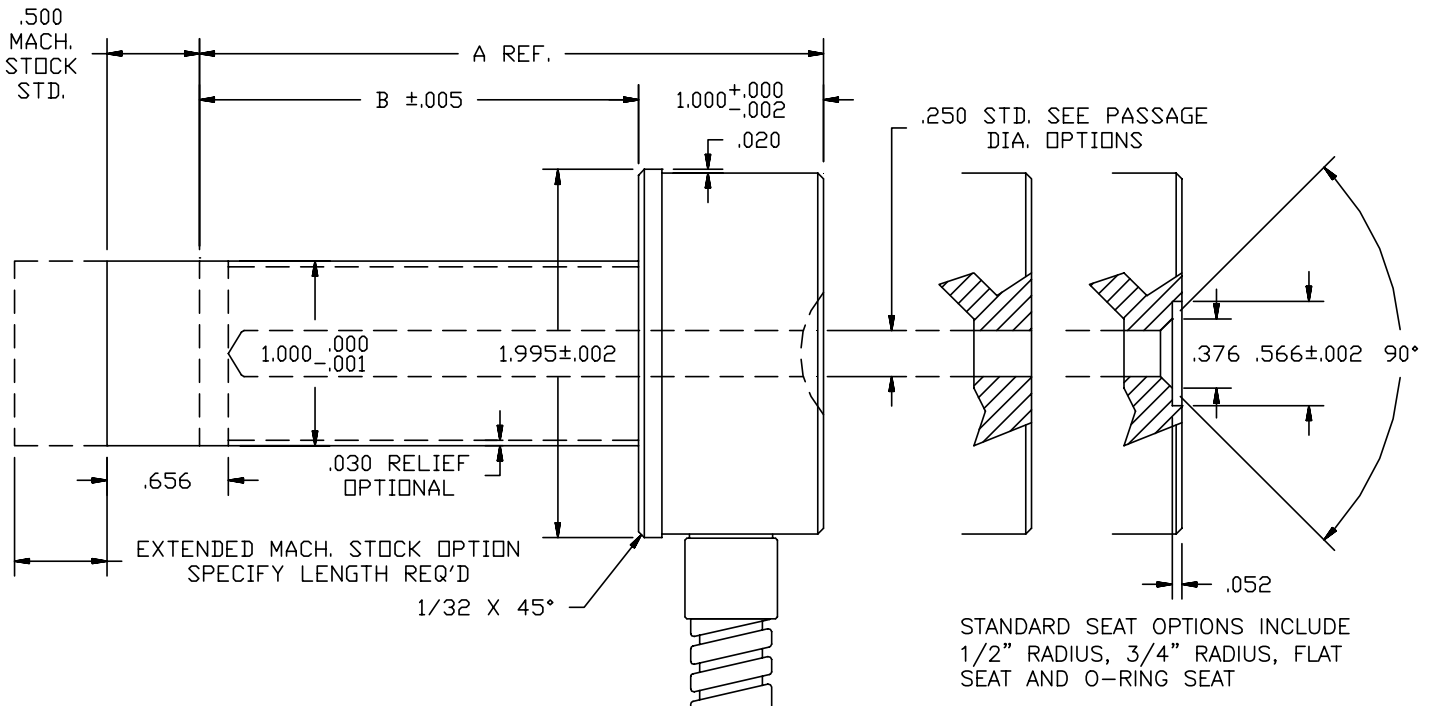
Melt Passage Dia. Options	Availability	Option Code
.219 Dia. Low Flow	Stock	L
.250 Dia. Med. Flow	Mod. Stock	M
.281 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.495 Diameter +/- .002	Stock	A
1.995 Diameter +/- .002	Stock	B

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90



**"SOLUTION" 1000 Center-Feed Sprue Gate Bushings And Options**



Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

**B M R50 - 1000 - 2.375 - L A A90**

Tip Option      Passage      Lead Option  
Seat Option      Option      Head Option

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

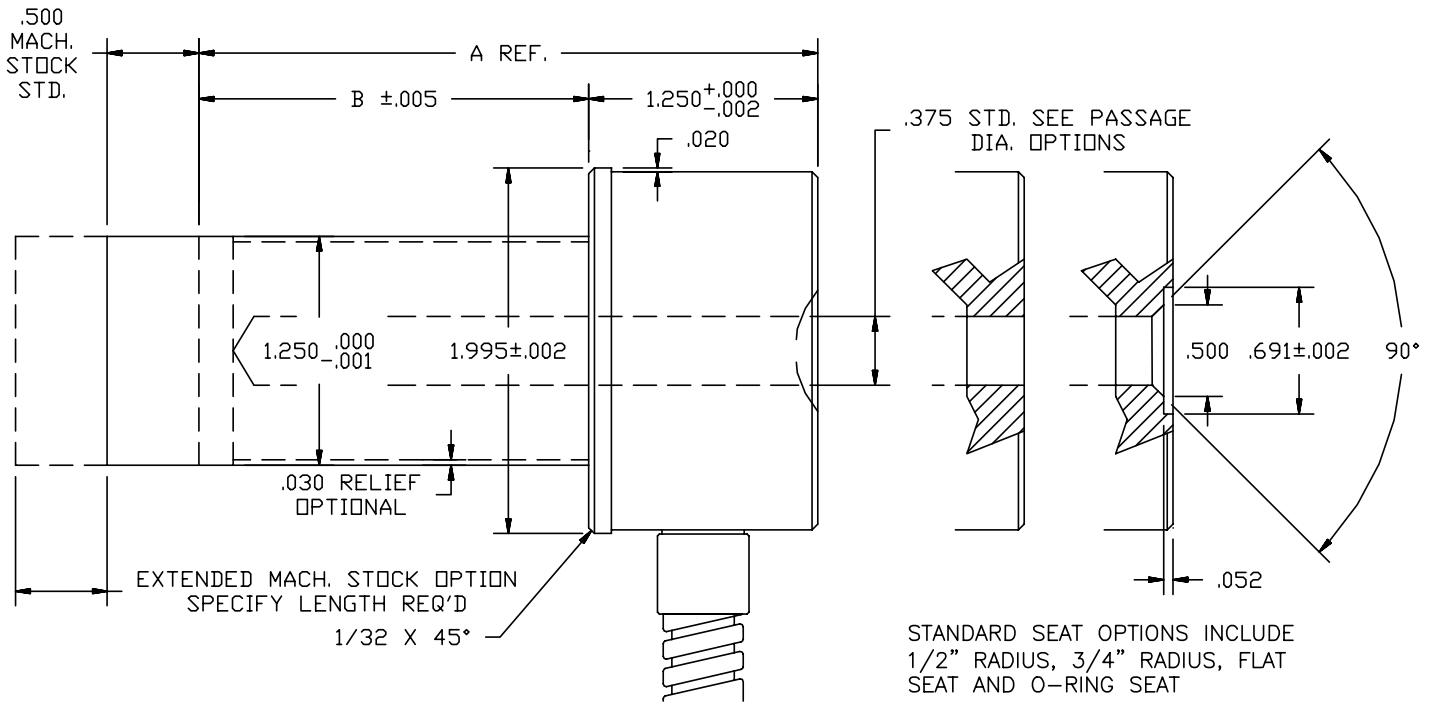
Melt Passage Dia. Options	Availability	Option Code
.250 Dia. Low Flow	Stock	L
.281 Dia. Med. Flow	Mod. Stock	M
.312 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.995 Diameter +/- .002	Stock	A

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90

Product Number	A Dim.	B Dim.	Watts
BMR50-1000-2.375-LAA90	2.375	1.375	340
BMR50-1000-2.875-LAA90	2.875	1.875	370
BMR50-1000-3.375-LAA90	3.375	2.375	400
BMR50-1000-3.875-LAA90	3.875	2.875	430
BMR50-1000-4.375-LAA90	4.375	3.375	465
BMR50-1000-4.875-LAA90	4.875	3.875	495
BMR50-1000-5.375-LAA90	5.375	4.375	525
BMR50-1000-5.875-LAA90	5.875	4.875	560
BMR50-1000-6.375-LAA90	6.375	5.375	590
BMR50-1000-6.875-LAA90	6.875	5.875	620
BMR50-1000-7.375-LAA90	7.375	6.375	650
BMR50-1000-7.875-LAA90	7.875	6.875	685
BMR50-1000-8.375-LAA90	8.375	7.375	715
BMR50-1000-8.875-LAA90	8.875	7.875	745
BMR50-1000-9.375-LAA90	9.375	8.375	780
BMR50-1000-9.875-LAA90	9.875	8.875	810

**"SOLUTION" 1250 Center-Feed Sprue Gate Bushings And Options**

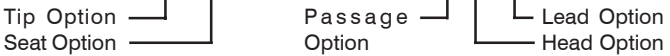


STANDARD SEAT OPTIONS INCLUDE  
1/2" RADIUS, 3/4" RADIUS,  
FLAT SEAT AND O-RING SEAT

Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

**B M R75 - 1250 - 3.375 - L A A90**



See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

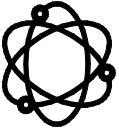
Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

Product Number	A Dim.	B Dim.	Watts
BMR75-1250-3.375-LAA90	3.375	2.125	420
BMR75-1250-3.875-LAA90	3.875	2.625	450
BMR75-1250-4.375-LAA90	4.375	3.125	480
BMR75-1250-4.875-LAA90	4.875	3.625	510
BMR75-1250-5.375-LAA90	5.375	4.125	540
BMR75-1250-5.875-LAA90	5.875	4.625	565
BMR75-1250-6.375-LAA90	6.375	5.125	595
BMR75-1250-6.875-LAA90	6.875	5.625	625
BMR75-1250-7.375-LAA90	7.375	6.125	655
BMR75-1250-7.875-LAA90	7.875	6.625	685
BMR75-1250-8.375-LAA90	8.375	7.125	715
BMR75-1250-8.875-LAA90	8.875	7.625	745
BMR75-1250-9.375-LAA90	9.375	8.125	775
BMR75-1250-9.875-LAA90	9.875	8.625	805
BMR75-1250-10.375-LAA90	10.375	9.125	830
BMR75-1250-10.875-LAA90	10.875	9.625	860

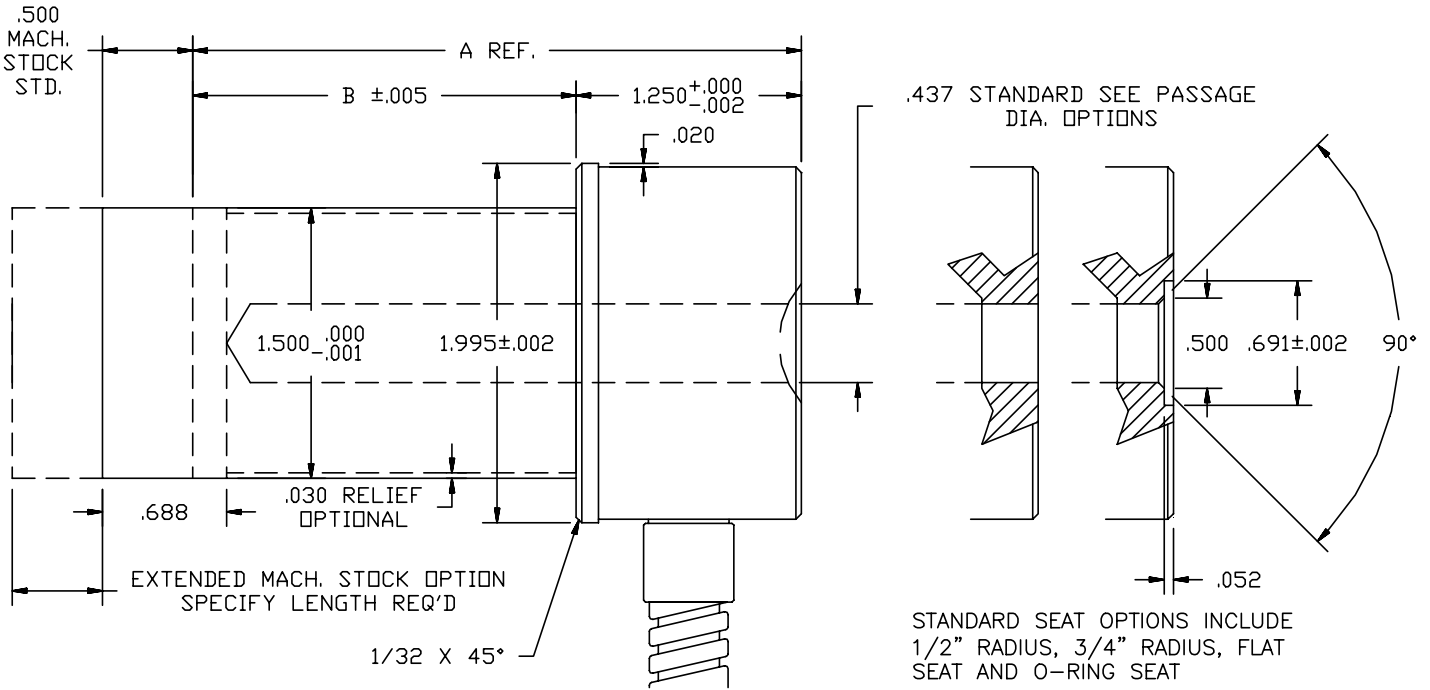
Melt Passage Dia. Options	Availability	Option Code
.375 Dia. Low Flow	Stock	L
.437 Dia. Med. Flow	Mod. Stock	M
.500 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.995 Diameter +/- .002	Stock	A

Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90



**"SOLUTION" 1500 Center-Feed Sprue Gate Bushings And Options**



STANDARD SEAT OPTIONS INCLUDE  
1/2" RADIUS, 3/4" RADIUS, FLAT  
SEAT AND O-RING SEAT

Tip Options	Availability	Option Code
Mach. Stock (Standard)	Stock	M
Mach. Stock & Sprue	Mod. Stock	FS
Reduced Dia Stock & Sprue	Mod. Stock	RS
Sprue & No Mach. Stock	Mod. Stock	SN
Integral Gating Tip	Mod. Stock	IT
Thread For Removable Tip	Mod. Stock	RT

**How To Order** - Select the desired bushing from the stock list below. Standard items conform to the drawing above. To order, replace standard option codes in the product number with the option codes of your choice. Order the optional thermocouple as a separate line item on your order. Standard components are designed for 240 volt operation. Special voltage or wattage ratings can be supplied if required.

See Pages 1-39 & 1-40 For Tip Details & Removable Tips.

**B M R75 - 1500 - 3.375 - L A A90**

Tip Option  Passage Option  Lead Option   
Seat Option  Head Option

Seat Options	Availability	Option Code
1/2" Nozzle Radius	Mod. Stock	R50
3/4" Nozzle Radius	Mod. Stock	R75
O-Ring Manifold	Mod. Stock	OM
Flat Manifold	Stock	FM

Product Number	A Dim.	B Dim.	Watts
BMR75-1500-3.375-LAA90	3.375	2.125	555
BMR75-1500-3.875-LAA90	3.875	2.625	590
BMR75-1500-4.375-LAA90	4.375	3.125	630
BMR75-1500-4.875-LAA90	4.875	3.625	665
BMR75-1500-5.375-LAA90	5.375	4.125	700
BMR75-1500-5.875-LAA90	5.875	4.625	735
BMR75-1500-6.375-LAA90	6.375	5.125	770
BMR75-1500-6.875-LAA90	6.875	5.625	805
BMR75-1500-7.375-LAA90	7.375	6.125	840
BMR75-1500-7.875-LAA90	7.875	6.625	875
BMR75-1500-8.375-LAA90	8.375	7.125	910
BMR75-1500-8.875-LAA90	8.875	7.625	945
BMR75-1500-9.375-LAA90	9.375	8.125	980
BMR75-1500-9.875-LAA90	9.875	8.625	1015
BMR75-1500-10.375-LAA90	10.375	9.125	1050
BMR75-1500-10.875-LAA90	10.875	9.625	1085

Melt Passage Dia. Options	Availability	Option Code
.437 Dia. Low Flow	Stock	L
.562 Dia. Med. Flow	Mod. Stock	M
.687 Dia. High Flow	Mod. Stock	H

Head Diameter Options	Availability	Option Code
1.995 Diameter +/- .002	Stock	A

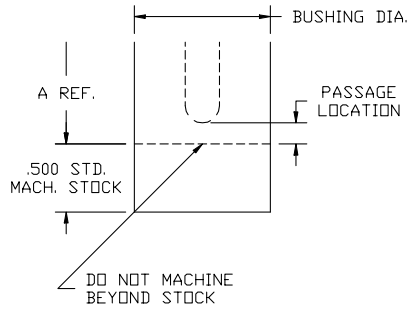
Lead Exit Options	Availability	Option Code
Armor And Leads @ 90 Deg.	Stock	A90
Sleeve And Leads @ 90 Deg.	Stock	S90

## "SOLUTION" Center-Feed Sprue Bushing Standard Tip Options

The standard bushing tip options show below represent the more popular configurations. Note that our inventory includes large quantities of bushings with unfinished machining stock.

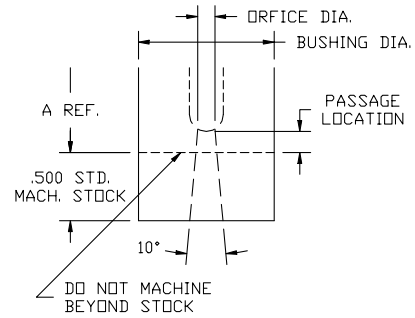
We can quickly modify these stock bushings to provide a wide range of variations on the basic tip configurations shown. If a special tip configuration is required, please submit a drawing.

**Standard Mach. Stock Option "M"**



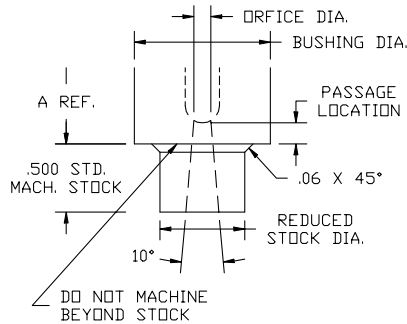
Bushing Dia.	.625	.750	1.000	1.250	1.500
Passage Location	.156	.156	.187	.187	.187

**Mach. Stock & Sprue Option "FS"**



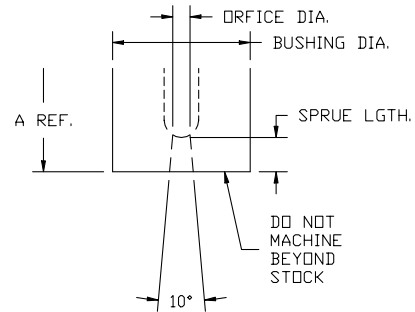
Bushing Dia.	.625	.750	1.000	1.250	1.500
Passage Location	.156	.156	.187	.187	.187
Std. Orifice Dia.	.060	.080	.125	.156	.187

**Reduced Dia. Stock & Sprue Option "RS"**



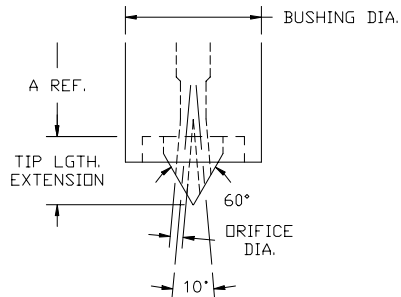
Bushing Dia.	.625	.750	1.000	1.250	1.500
Sprue Length	.187	.250	.250	.312	.375
Std. Orifice Dia.	.060	.080	.125	.156	.187

**Sprue & No Mach. Stock Option "SN"**



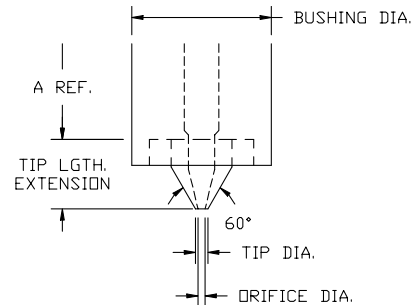
Bushing Dia.	.625	.750	1.000	1.250	1.500
Sprue Length	.187	.250	.250	.312	.375
Std. Orifice Dia.	.060	.080	.125	.156	.187

**Integral Gating Tip - Pin Style Option "ITP"**



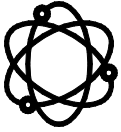
Bushing Dia.	.625	.750	1.000	1.250	1.500
Tip Ext. Lgth.	.312	.375	.437	.625	.625
Orifice Dia.	.060	.080	.120	.140	.160

**Integral Gating Tip - Ring Style Option "ITR"**



Bushing Dia.	.625	.750	1.000	1.250	1.500
Tip Ext. Lgth.	.312	.375	.437	.625	.625
Tip Dia.	.080	.090	.100	.120	.140
Orifice Dia.	.040	.050	.060	.080	.100

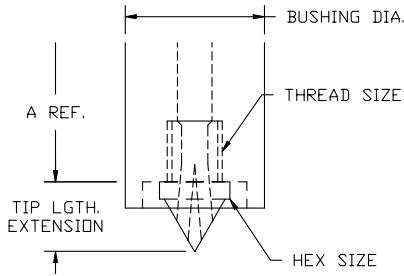




**"SOLUTION" Center-Feed Sprue Bushing Standard Tip Options**

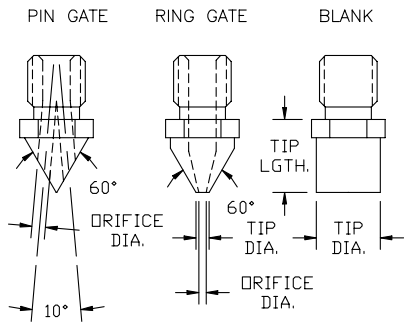
The removable tip options are designed to facilitate replacement of damaged or worn tips, and in addition, provide easy field modification of tips to adjust gating characteristics. Note that a number of additional removable tip designs were being evaluated during printing of this catalog. Custom removable tip designs can also be supplied. For additional information on new standard or custom removable tips, please contact the Duratherm sales or engineering staff for assistance.

**Removable Tip Insert Option "RTI"**



Bushing Dia.	.625	.750	1.000	1.250	1.500
Tip Lgth. Ext.	.312	.375	.437	.625	.625
MM Thread Size	5 x .5	7 x 1	10 x 1	12 x 1.5	15 x 1.5
Hex Size	5/16	3/8	9/16	11/16	13/16

**Tips For Removable Tip Insert Option "RTI"**



**Pin Tip Dimensions And Product Numbers**

Bushing Dia.	.625	.750	1.000	1.250	1.500
Product No.	P62-06	P75-08	P10-12	P12-06	P15-06
Orifice Dia.	.060	.080	.120	.140	.160

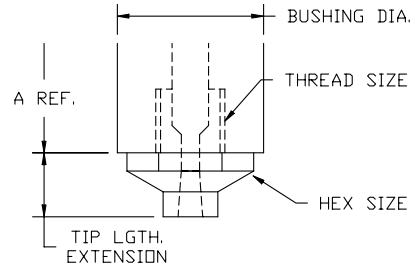
**Ring Tip Dimensions And Product Numbers**

Bushing Dia.	.625	.750	1.000	1.250	1.500
Product No.	R62-04	R75-05	R10-06	R12-08	R15-10
Tip Dia.	.080	.090	.100	.120	.140
Orifice Dia.	.040	.050	.060	.080	.100

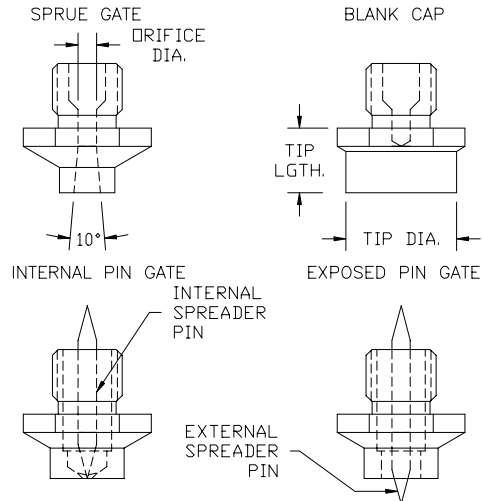
**Blank Tip Dimensions And Product Numbers**

Bushing Dia.	.625	.750	1.000	1.250	1.500
Product No.	B62	B75	B10	B12	B15
Tip Dia.	.060	.080	.120	.140	.160

**Removable Tip Cap Option "RTC"**



Bushing Dia.	.625	.750	1.000	1.250	1.500
Tip Lgth. Ext.	Extension Length Depends On Tip Selected				
MM Thread Size	5 x .5	7 x 1	12 x 1	16 x 1	18 x 1.5
Hex Size	.500	.625	.750	1.000	1.250



**Cap Style Sprue Tip Dimensions And Product Numbers**

Bushing Dia.	.625	.750	1.000	1.250	1.500
Product No.	CS621	CS751	CS101	CS121	CS151
Std. Orifice Dia.	.060	.080	.125	.156	.187

**Cap Style Blank Tip Dimensions And Product Numbers**

Bushing Dia.	.625	.750	1.000	1.250	1.500
Product No.	CB621	CB751	CB101	CB121	CB151
Tip Dia.	.060	.080	.120	.140	.160
Tip Lgth.	.375	.375	.500	.500	.500

Please contact our engineering staff for spreader pin style cap and pin dimensions and machining specifications. Additional new cap and insert configurations are currently being tested and evaluated.

**Internal Style Cap & Pin Product Numbers**

Bushing Dia.	1.000	1.250	1.500
Cap Prod. No.	CPI-101	CPI-121	CPI-151
Pin Prod. No.	PI-101	PI-121	PI-151

**External Style Cap & Pin Product Numbers**

Bushing Dia.	1.000	1.250	1.500
Cap Prod. No.	CPE-101	CPE-121	CPE-151
Pin Prod. No.	PE-101	PE-121	PE-151