



Equatemp[®] Dual Zone Hot Sprue Bushings

INTEGRALLY HEATED HEAD & BODY
FOR DEMANDING APPLICATIONS

MD-SERIES HOT SPRUE BUSHINGS

Dual Zone Integrally Heated Sprue Bushings

The **Equatemp® Dual Zone Integrally Heated Sprue Bushings** are unique designs incorporating individual head and nozzle body heaters, allowing for more accurate control to yield a more consistent thermal profile, essential when processing tight tolerance engineered resins.

Three tip designs provide flexibility for direct or runner gating, and the full body and topless tips are available with either standard or wear resistant needles. The “extra-stock” style sprue bushing tips provide additional material for machining profiles or part contours.

A replaceable nozzle thermocouple is located at the tip and near the melt flow, improving controllability.

Features and Benefits:

- **Separate, individually controllable head and nozzle body heaters** - to maintain a more consistent thermal profile for more accurate temperature control.
- **Designed for engineered resins** – higher temperatures and tighter temperature tolerances.
- **Integral heater insulation** – improves heat transfer and efficiency.
- **Fully sealed construction** – for increased reliability.
- **High-grade alloy steel construction** – for increased durability.

HOT SPRUE BUSHING TIP STYLE



**SPRUE
STANDARD**



**SPRUE
EXTRA STOCK**

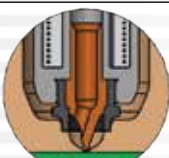
For use where gate vestige is allowed. Provides low resistance to flow with excellent flow rates.

Extended style provides additional stock for machining profiles or part contours.



**FULL
BODY**

Ideal for low vestige commodity and engineering grade resin applications. The Full Body features a sealed tip for efficient shut-off at the part surface. Available with standard or wear resistant needles. Extended style provides additional stock for machining profiles or part contours.



TOPLESS

Suitable for high viscosity resins, engineering plastics and applications requiring optimum gate cosmetics with minimal gate vestige. Available with standard or wear-resistant needles.

MD-SERIES HOT SPRUE BUSHINGS

BUSHING SELECTION

GENERIC PLOYMER NAME (TRADE NAME)

[A=AMORPHOUS or C=CRYSTALLINE]

Commodity Resins

NOTE: If flame retardant is present in the desired resin grade, please contact DME for product suitability or application guidance.

NOZZLES	TIP	Recommended Gate Diameter Range				Flow Capacity (Grams)			TPE (Elastomer) [A]	PE (Polyethylene) [C]	PE GF (Polyethylene GF) [C]	PS (Polystyrene) [A]	PS GF (Polystyrene GF) [A]	SAN [A]	TPO [C]	PP (Polypropylene) [C]	PP GF (Polypropylene GF) [C]	PP TE (Polypropylene TE) [C]	TPU
		Min (mm)	Max (mm)	Min (inch)	Max (inch)	Low MFI.16	Medium MFI 7-16	High MFI .02-7											
Equatemp 3/4" Dia. Dual-Zone HSB	Sprue Tip	1.5	2.4	0.062	0.094	300	150	75	L	L	H	M	H	M	L	M	H	M	M
	Standard Point Gate Tip	0.8	1.5	0.030	0.060	100	75	50											
	Wear Resistant Point Gate Tip	1.5	2.0	0.060	0.080	100	75	50											
Equatemp 1" Dia. Dual-Zone HSB	Sprue Tip	2.4	3.1	0.094	0.156	550	400	250											
	Standard Point Gate Tip	0.8	2.0	0.030	0.080	250	175	125											
	Wear Resistant Point Gate Tip	1.5	2.5	0.060	0.100	250	175	125											

The values expressed in grams are for reference only and are determined by using a nominal wall thickness of 1.8mm (.070") and unfilled poly-propylene. Part dimension, wall thickness, length of fill within part, mold conditions and molding parameters must also be considered.

GENERIC PLOYMER NAME (TRADE NAME)

[A=AMORPHOUS or C=CRYSTALLINE]

Engineered Resins

NOTE: If flame retardant is present in the desired resin grade, please contact DME for product suitability or application guidance.

NOZZLES	TIP	Recommended Gate Diameter Range				Flow Capacity (Grams)			ABS [A]	ABS PC [A]	PMMA Acrylon [A]	POM Acetal [C]	PA (Nylon) [C]	PA GF (Nylon) [C]	PA MF GF (Milestone) [C]	PPE [A]	PPD Noryl [A]	PPD GF Noryl [A]	PBT Polyester [C]	PBT GF Polyester [C]	PET [C]	PC (Polycarbonate) [A]	PC GF (Polycarbonate GF) [A]	PPS [C]	PSU [A]	PSU GF [A]	PUR (Urethane) [A]	LCP [C]	PEI (Ultem) [A]	PEEK [C]	PVC (Flex Vinyl) [A]
		Min (mm)	Max (mm)	Min (inch)	Max (inch)	Low MFI.16	Medium MFI 7-16	High MFI .02-7																							
Equatemp 3/4" Dia. Dual-Zone HSB	Sprue Tip	1.5	2.4	0.062	0.094	300	150	75	M	H	H	M	L	H	H	H	H	H	H	H	L	H	H	M	H	H	L	L	H	H	M
	Standard Point Gate Tip	0.8	1.5	0.030	0.060	100	75	50																							
	Wear Resistant Point Gate Tip	1.5	2.0	0.060	0.080	100	75	50																							
Equatemp 1" Dia. Dual-Zone HSB	Sprue Tip	2.4	3.1	0.094	0.156	550	400	250																							
	Standard Point Gate Tip	0.8	2.0	0.030	0.080	250	175	125																							
	Wear Resistant Point Gate Tip	1.5	2.5	0.060	0.100	250	175	125																							

The values expressed in grams are for reference only and are determined by using a nominal wall thickness of 1.8mm (.070") and unfilled poly-propylene. Part dimension, wall thickness, length of fill within part, mold conditions and molding parameters must also be considered.

Polymer Vescosity Key

L= Low

M= Medium

H= High

Resin Application Key

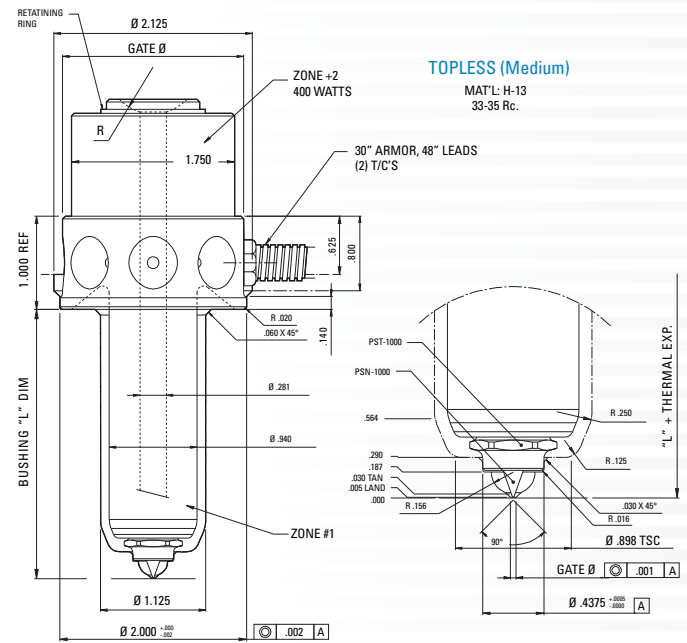
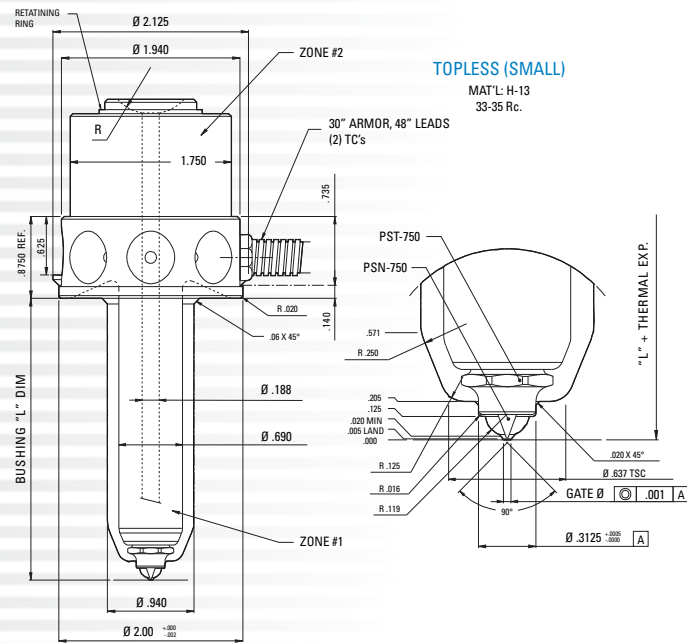
Good

Contact DME

Not Recommended

MD TOPLESS TYPE HOT SPRUE BUSHINGS

3/4" & 1" STEM DIAMETER



3/4" DIA

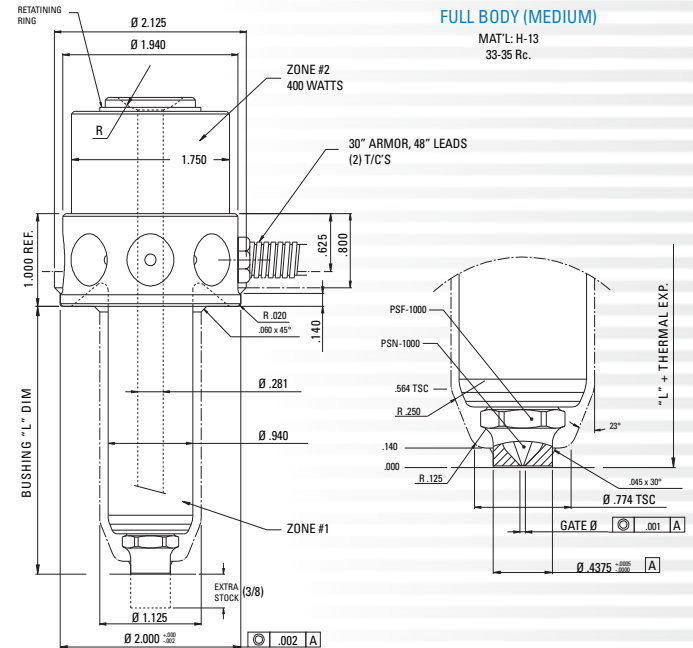
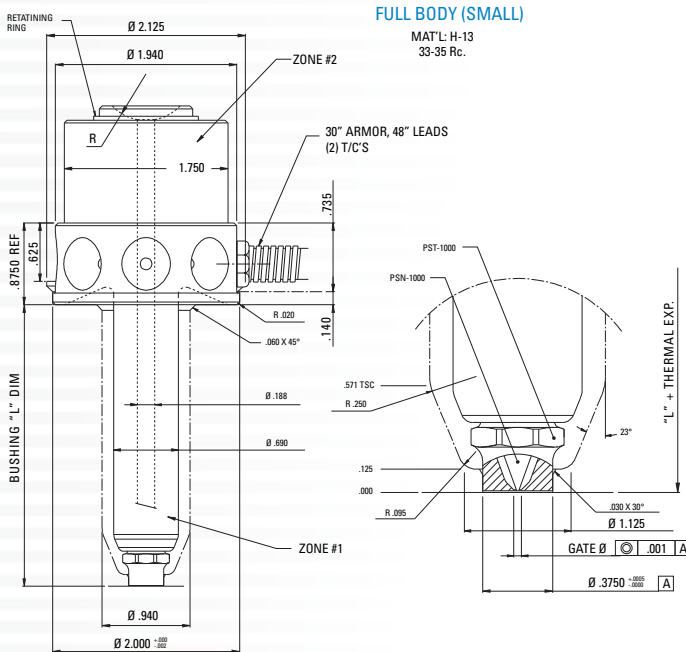
LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD	WEAR RESISTANT	STANDARD	WEAR RESISTANT			
1.500	DMEMD7523-50TN1	DMEMD7523-50TN2	DMEMD7523-75TN1	DMEMD7523-75TN2	220V	640	DMEJ206
2.000	DMEMD7527-50TN1	DMEMD7527-50TN2	DMEMD7527-75TN1	DMEMD7527-75TN2		700	DMEJ210
2.500	DMEMD7533-50TN1	DMEMD7533-50TN2	DMEMD7533-75TN1	DMEMD7533-75TN2		720	
3.000	DMEMD7537-50TN1	DMEMD7537-50TN2	DMEMD7537-75TN1	DMEMD7537-75TN2		740	
3.500	DMEMD7543-50TN1	DMEMD7543-50TN2	DMEMD7543-75TN1	DMEMD7543-75TN2		770	
4.000	DMEMD7547-50TN1	DMEMD7547-50TN2	DMEMD7547-75TN1	DMEMD7547-75TN2		800	

1" DIA

	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS				
LENGTH	STANDARD	WEAR RESISTANT	STANDARD	WEAR RESISTANT	VOLTS	WATTS	REPL. T/C
1.375	DMEMD1023-50TN1	DMEMD1023-50TN2	DMEMD1023-75TN1	DMEMD1023-75TN2	220V	645	DMEJ206
1.875	DMEMD1027-50TN1	DMEMD1027-50TN2	DMEMD1027-75TN1	DMEMD1027-75TN2		665	
2.375	DMEMD1033-50TN1	DMEMD1033-50TN2	DMEMD1033-75TN1	DMEMD1033-75TN2		695	DMEJ210
2.875	DMEMD1037-50TN1	DMEMD1037-50TN2	DMEMD1037-75TN1	DMEMD1037-75TN2		740	
3.375	DMEMD1043-50TN1	DMEMD1043-50TN2	DMEMD1043-75TN1	DMEMD1043-75TN2		760	
3.875	DMEMD1047-50TN1	DMEMD1047-50TN2	DMEMD1047-75TN1	DMEMD1047-75TN2		785	
4.375	DMEMD1053-50TN1	DMEMD1053-50TN2	DMEMD1053-75TN1	DMEMD1053-75TN2		810	
4.875	DMEMD1057-50TN1	DMEMD1057-50TN2	DMEMD1057-75TN1	DMEMD1057-75TN2		835	
5.375	DMEMD1063-50TN1	DMEMD1063-50TN2	DMEMD1063-75TN1	DMEMD1063-75TN2		860	

MD FULL BODY TYPE HOT SPRUE BUSHINGS

3/4" & 1" STEM DIAMETER



3/4" DIA

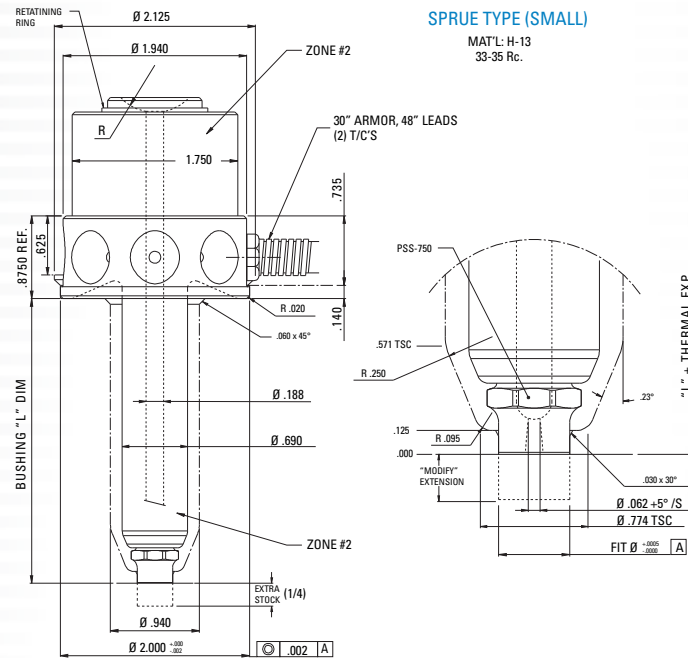
LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD	WEAR RESISTANT	STANDARD	WEAR RESISTANT			
1.500	DMEMD7523-50FN1	DMEMD7523-50FN2	DMEMD7523-75FN1	DMEMD7523-75FN2	220V	640	DMEJ206
2.000	DMEMD7527-50FN1	DMEMD7527-50FN2	DMEMD7527-75FN1	DMEMD7527-75FN2		700	DMEJ210
2.500	DMEMD7533-50FN1	DMEMD7533-50FN2	DMEMD7533-75FN1	DMEMD7533-75FN2		720	
3.000	DMEMD7537-50FN1	DMEMD7537-50FN2	DMEMD7537-75FN1	DMEMD7537-75FN2		740	
3.500	DMEMD7543-50FN1	DMEMD7543-50FN2	DMEMD7543-75FN1	DMEMD7543-75FN2		770	
4.000	DMEMD7547-50FN1	DMEMD7547-50FN2	DMEMD7547-75FN1	DMEMD7547-75FN2		800	

1" DIA

LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD	WEAR RESISTANT	STANDARD	WEAR RESISTANT			
1.375	DMEMD1023-50FN1	DMEMD1023-50FN2	DMEMD1023-75FN1	DMEMD1023-75FN2	220V	645	DMEJ206
1.875	DMEMD1027-50FN1	DMEMD1027-50FN2	DMEMD1027-75FN1	DMEMD1027-75FN2		665	
2.375	DMEMD1033-50FN1	DMEMD1033-50FN2	DMEMD1033-75FN1	DMEMD1033-75FN2		695	DMEJ210
2.875	DMEMD1037-50FN1	DMEMD1037-50FN2	DMEMD1037-75FN1	DMEMD1037-75FN2		740	
3.375	DMEMD1043-50FN1	DMEMD1043-50FN2	DMEMD1043-75FN1	DMEMD1043-75FN2		760	
3.875	DMEMD1047-50FN1	DMEMD1047-50FN2	DMEMD1047-75FN1	DMEMD1047-75FN2		785	
4.375	DMEMD1053-50FN1	DMEMD1053-50FN2	DMEMD1053-75FN1	DMEMD1053-75FN2		810	
4.875	DMEMD1057-50FN1	DMEMD1057-50FN2	DMEMD1057-75FN1	DMEMD1057-75FN2		835	
5.375	DMEMD1063-50FN1	DMEMD1063-50FN2	DMEMD1063-75FN1	DMEMD1063-75FN2		860	

MD SPRUE TYPE HOT SPRUE BUSHINGS

3/4" STEM DIAMETER (SMALL)



0.375" FITØ

LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD LENGTH	EXTRA STOCK*	STANDARD LENGTH	EXTRA STOCK*			
1.500	DMEMD7523-50SE1	DMEMD7523-50SE2	DMEMD7523-75SE1	DMEMD7523-75SE2	220V	640	DMEJ206
2.000	DMEMD7527-50SE1	DMEMD7527-50SE2	DMEMD7527-75SE1	DMEMD7527-75SE2		700	DMEJ210
2.500	DMEMD7533-50SE1	DMEMD7533-50SE2	DMEMD7533-75SE1	DMEMD7533-75SE2		720	
3.000	DMEMD7537-50SE1	DMEMD7537-50SE2	DMEMD7537-75SE1	DMEMD7537-75SE2		740	
3.500	DMEMD7543-50SE1	DMEMD7543-50SE2	DMEMD7543-75SE1	DMEMD7543-75SE2		770	
4.000	DMEMD7547-50SE1	DMEMD7547-50SE2	DMEMD7547-75SE1	DMEMD7547-75SE2		800	

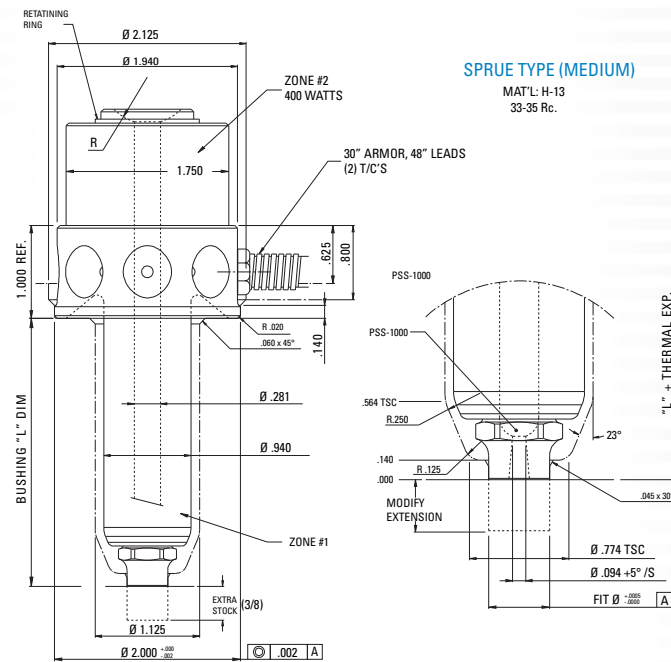
0.750" FITØ

LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD LENGTH	EXTRA STOCK*	STANDARD LENGTH	EXTRA STOCK*			
1.500	DMEMD7523-50SE3	DMEMD7523-50SE4	DMEMD7523-75SE3	DMEMD7523-75SE4	220V	640	DMEJ206
2.000	DMEMD7527-50SE3	DMEMD7527-50SE4	DMEMD7527-75SE3	DMEMD7527-75SE4		700	DMEJ210
2.500	DMEMD7533-50SE3	DMEMD7533-50SE4	DMEMD7533-75SE3	DMEMD7533-75SE4		720	
3.000	DMEMD7537-50SE3	DMEMD7537-50SE4	DMEMD7537-75SE3	DMEMD7537-75SE4		740	
3.500	DMEMD7543-50SE3	DMEMD7543-50SE4	DMEMD7543-75SE3	DMEMD7543-75SE4		770	
4.000	DMEMD7547-50SE3	DMEMD7547-50SE4	DMEMD7547-75SE3	DMEMD7547-75SE4		800	

*NOTE: The extra stock tip requires flowpath finishing by Mold Builder

MD SPRUE TYPE HOT SPRUE BUSHINGS

1" STEM DIAMETER (MEDIUM)



0.438" FITØ

	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
LENGTH	STANDARD LENGTH	EXTRA STOCK*	STANDARD LENGTH	EXTRA STOCK*			
1.375	DMEMD1023-50SE1	DMEMD1023-50SE2	DMEMD1023-75SE1	DMEMD1023-75SE2	220V	645	DMEJ206
1.875	DMEMD1027-50SE1	DMEMD1027-50SE2	DMEMD1027-75SE1	DMEMD1027-75SE2		665	
2.375	DMEMD1033-50SE1	DMEMD1033-50SE2	DMEMD1033-75SE1	DMEMD1033-75SE2		695	
2.875	DMEMD1037-50SE1	DMEMD1037-50SE2	DMEMD1037-75SE1	DMEMD1037-75SE2		740	DMEJ210
3.375	DMEMD1043-50SE1	DMEMD1043-50SE2	DMEMD1043-75SE1	DMEMD1043-75SE2		760	
3.875	DMEMD1047-50SE1	DMEMD1047-50SE2	DMEMD1047-75SE1	DMEMD1047-75SE2		785	
4.375	DMEMD1053-50SE1	DMEMD1053-50SE2	DMEMD1053-75SE1	DMEMD1053-75SE2		810	
4.875	DMEMD1057-50SE1	DMEMD1057-50SE2	DMEMD1057-75SE1	DMEMD1057-75SE2		835	
5.375	DMEMD1063-50SE1	DMEMD1063-50SE2	DMEMD1063-75SE1	DMEMD1063-75SE2		860	

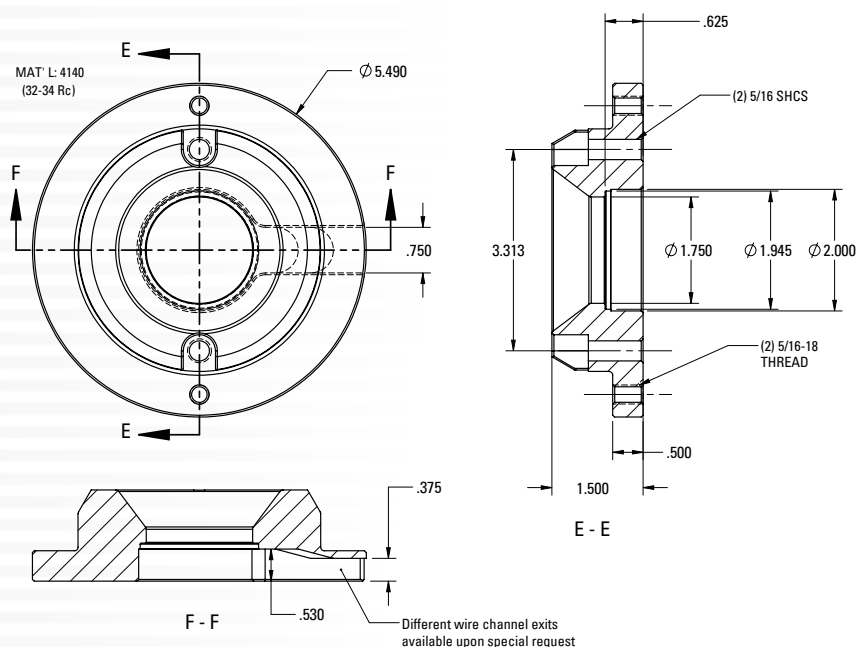
1.000" FITØ

LENGTH	1/2" SPHERICAL RADIUS		3/4" SPHERICAL RADIUS		VOLTS	WATTS	REPL. T/C
	STANDARD LENGTH	EXTRA STOCK*	STANDARD LENGTH	EXTRA STOCK*			
1.375	DMEMD1023-50SE3	DMEMD1023-50SE4	DMEMD1023-75SE3	DMEMD1023-75SE4	220V	645	DMEJ206
1.875	DMEMD1027-50SE3	DMEMD1027-50SE4	DMEMD1027-75SE3	DMEMD1027-75SE4		665	
2.375	DMEMD1033-50SE3	DMEMD1033-50SE4	DMEMD1033-75SE3	DMEMD1033-75SE4		695	DMEJ210
2.875	DMEMD1037-50SE3	DMEMD1037-50SE4	DMEMD1037-75SE3	DMEMD1037-75SE4		740	
3.375	DMEMD1043-50SE3	DMEMD1043-50SE4	DMEMD1043-75SE3	DMEMD1043-75SE4		760	
3.875	DMEMD1047-50SE3	DMEMD1047-50SE4	DMEMD1047-75SE3	DMEMD1047-75SE4		785	
4.375	DMEMD1053-50SE3	DMEMD1053-50SE4	DMEMD1053-75SE3	DMEMD1053-75SE4		810	
4.875	DMEMD1057-50SE3	DMEMD1057-50SE4	DMEMD1057-75SE3	DMEMD1057-75SE4		835	
5.375	DMEMD1063-50SE3	DMEMD1063-50SE4	DMEMD1063-75SE3	DMEMD1063-75SE4		860	

*NOTE: The extra stock tip requires flowpath finishing by Mold Builder

MD HOT SPRUE BUSHING

LOCATING RINGS



ITEM NUMBER
DMEBLR2055

THERMAL EXPANSION DATA

3/4" STEM

LENGTH	THERMAL EXPANSION ΔL @ (°F)			
	370°F	460°F	550°F	640°F
1.500	0.003	0.005	0.006	0.007
2.000	0.004	0.006	0.007	0.009
2.500	0.005	0.007	0.009	0.011
3.000	0.006	0.009	0.011	0.013
3.500	0.007	0.010	0.012	0.015
4.000	0.008	0.011	0.014	0.016

1" STEM

LENGTH	THERMAL EXPANSION ΔL @ (°F)			
	370°F	460°F	550°F	640°F
1.375	0.004	0.006	0.007	0.009
1.875	0.005	0.007	0.009	0.011
2.375	0.006	0.009	0.011	0.013
2.875	0.007	0.010	0.012	0.015
3.375	0.008	0.011	0.014	0.016
3.875	0.009	0.013	0.016	0.018
4.375	0.010	0.014	0.017	0.020
4.875	0.011	0.015	0.019	0.022
5.375	0.012	0.017	0.020	0.024



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