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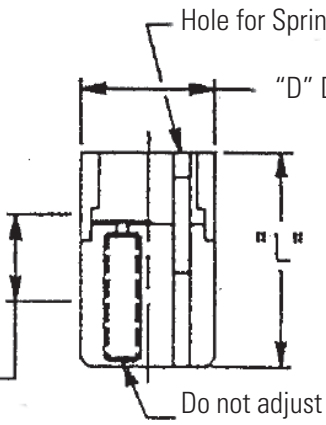
800-626-6653

ME-0516-PS-016-A
MRS-9999
US Patent # 5,208,053

Runner Shut-Off Inserts (Metric)

All dimensions are in inches except for a few metric reference dimensions which are in millimeters and are shown in parenthesis.

Material: AISI 420 Stainless Steel
R/C 47-52



Measure "D" diameter in this area only. Top and bottom of insert have a very slight relief for proper installation and operation.

Do not adjust spring plunger, it has been supplied install in the correct position.

Installation and Operation Notes:

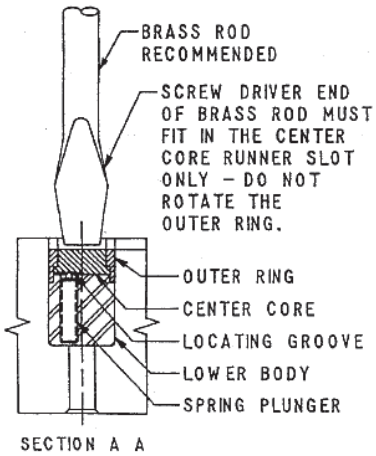
1. Maintain a close tolerance press fit, as specified. Too loose a fit could allow the insert to move out of position, while too tight a press fit might prevent the center core from rotating when required.
2. Position insert with hole for spring pin away from area where runners are to be machined.
3. Insert must be backed up by the shoulder of the pocket or a supporting plate while grinding or machining, and when assembled in the mold.
4. For machining runners sharp carbide cutters are recommended.
5. All runners should be machined and at 90º to the centerline. Unless this is done, the runners will not align closely when rotated 90º or 180º to shut-off material flow to a cavity.

Item #	"D" Diameter	"L" Length
MRS-0013	.5118 Dia. (13mm dia.)	.885 (22.5mm)
MRS-0016	.6229 Dia. (16mm dia.)	.885 (22.5mm)
MRS-0026	1.0236 Dia. (26mm dia.)	1.260 (32mm)

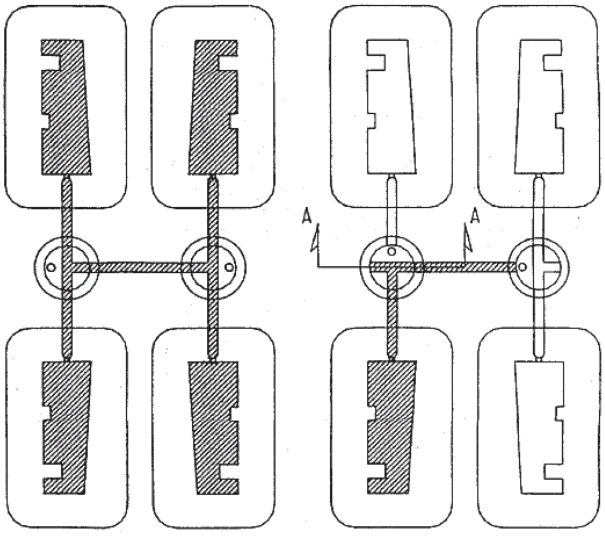
Runner Shut-Off Inserts are supplied only as complete assemblies.

Each insert includes:
- Outer Ring
- Center Core
- Lower Body
- Spring Pin
- Spring Plunger

Shutting off the Runner to one or several Cavities



Spring Plunger in runner Shut-Off Insert engages a locating groove in the center core. This holds the center core in position at each 90º rotation of the center core, providing several combinations of Runner Shut-Off Positions.



Runner shut-off inserts are shown above in the open position which allows material to flow to all cavities. By rotating the center core of the runner shut-off insert 90º or 180º with the scredriver end of a brass rod, material flow to one or several cavities can be shutoff as shown.

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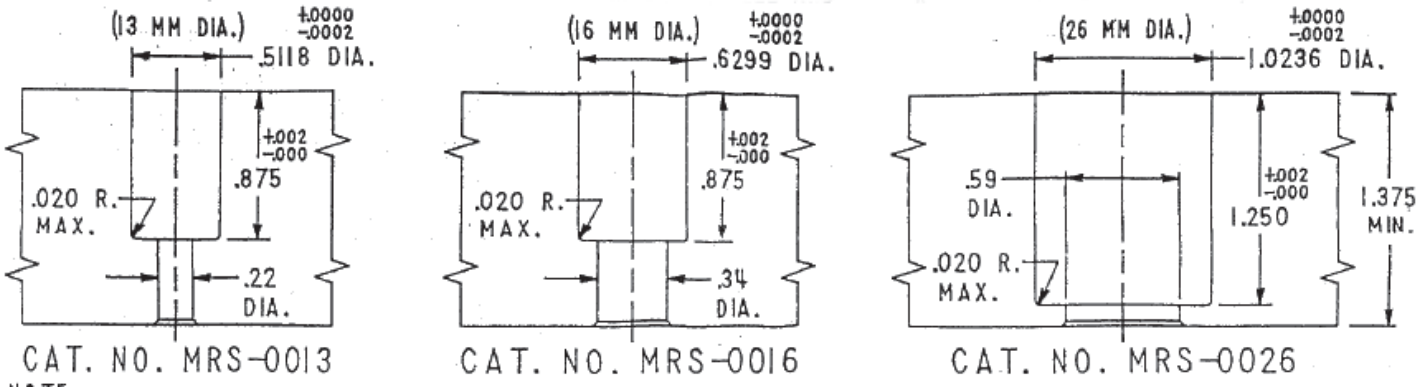
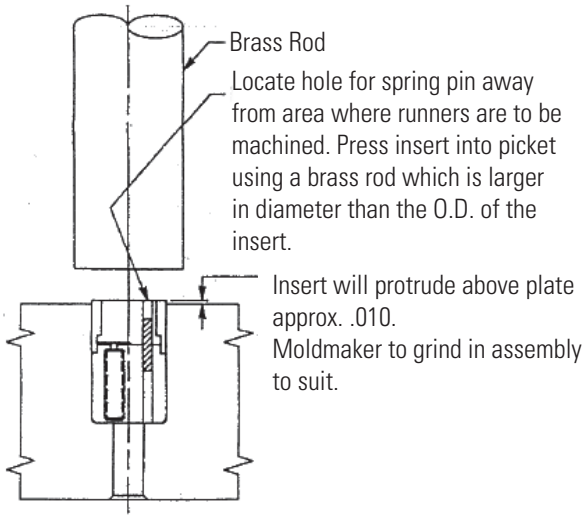
Step 1 Dimensions for machining pocket for runner shut-off inserts. (pockets are typically bored in soft steel and jig ground in hardened steel.)



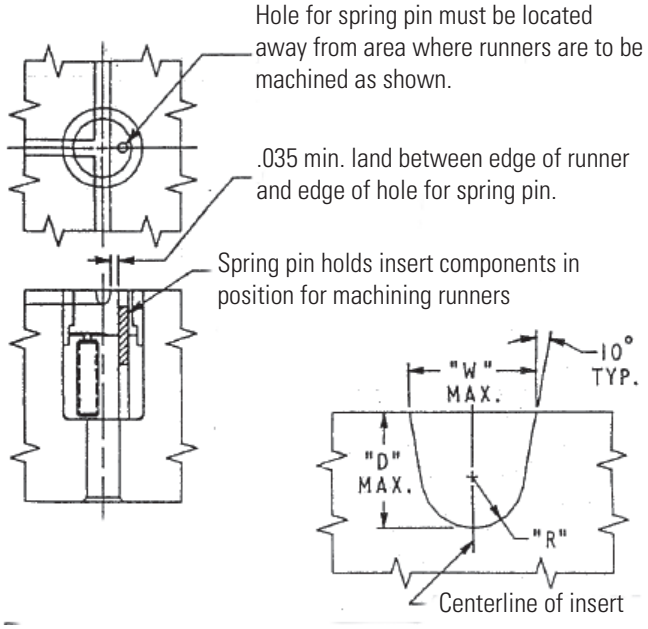
NOTE: When using a 7/8 thick plate with the MRS-0013 or MRS-0016 inserts, machine the .5118 or .6299 diameters through the plate. Insert must seat against a supporting plate before any grinding or machining is done. All dimensions are in inches except for a few metric reference dimensions which are in millimeters and are shown in parenthesis.

Step 2 Pressing insert into pocket



NOTE: Insert must be backed-up by the shoulder of the pocket or a supporting plate while grinding or machining, and when assembled in the mold.

Step 3 Dimensions for machining runners



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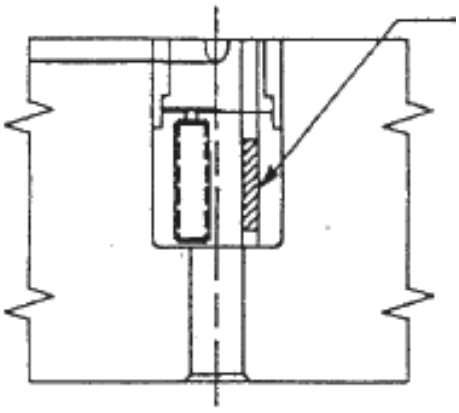
Step 4 Releasing locking feature



After runner has been fully machined and polished, drive spring pin down into lower body. This will allow the center core to be rotated 90º or 180º when it is desired that a runner be shut off to one or more cavities.

Recommended Runner Sizes					
Item #	"W" Width	"D" Depth	"R" Radius	Equiv. Dia.	Area Sq. In.
MRS-0013 (MRS-0016 & 26)	.099	.091	.040	.094	.007
	.128	.120	.050	.125	.012
MRS-0016 (MRS-0026)	.151	.131	.062	.141	.016
	.169	.144	.070	.156	.019
	.186	.157	.078	.172	.023
	.205	.175	.086	.187	.027
MRS-0026	.261	.218	.109	.218	.037
	.298	.250	.125	.250	.049
	.334	.281	.140	.281	.062
	.372	.312	.156	.312	.076
	.410	.343	.172	.343	.092
	.447	.375	.187	.375	.110