RUNNER SHUT-OFF INSERTS - METRIC

U.S. PATENT NO. 5.208.053

ALL DIMENSIONS ARE IN INCHES EXCEPT FOR A FEW METRIC REFERENCE DIMENSIONS WHICH ARE IN MILLIMETERS AND ARE SHOWN IN PARENTHESIS.

CAT. NO.

MRS-0013

MRS-0016

MRS-0026

MEASURE "D" DIAMETER-IN THIS AREA ONLY. TOP AND BOTTOM OF INSERT HAVE A VERY SLIGHT RELIEF FOR PROPER INSTALLATION AND OPERATION.

"D" DIAMETER

.5118 DIA.

(13 MM DIA.)

.6229 DIA.

(16 MM DIA.)

1.0236 DIA.

(26 MM DIA.)

-HOLE FOR SPRING PIN "D" DIA.

"L" LENGTH

.885

(22.5 MM)

.885

(22.5 MM)

1.260

(32 MM)

MATERIAL: AISI 420 STAINLESS STEEL - R/C 47-52

DO NOT ADJUST SPRING PLUNGER IT HAS BEEN SUPPLIED INSTALLED TO THE CORRECT POSITION.

> RUNNER SHUT-OFF INSERTS ARE SUPPLIED ONLY AS COMPLETE ASSEMBLIES.

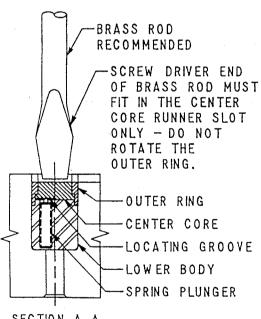
EACH INSERT INCLUDES:

- OUTER RING
- CENTER CORE
- I LOWER BODY
- I SPRING PIN
- I SPRING PLUNGER

INSTALLATION AND OPERATION NOTES:

- I. 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 ALONG THE CENTERLINE OF THE INSERT AND AT 90° TO THE CENTERLINE. UNLESS THIS IS DONE THE RUNNERS WILL NOT ALIGN CLOSELY WHEN ROTATED 90° OR 180° TO SHUT-OFF. MATERIAL FLOW TO A CAVITY.

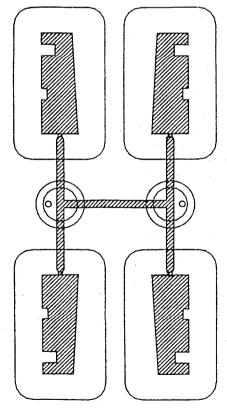
SHUTTING OFF THE RUNNER TO ONE OR SEVERAL CAVITIES



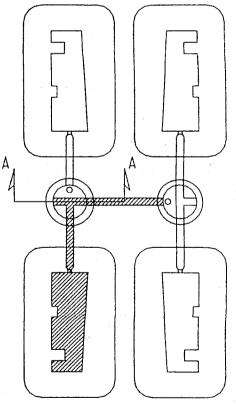
SECTION A A

NOTE:

SPRING PLUNGER IN RUNNER SHUT-OFF INSERT ENGAGES A LOCATING GROOVE IN THE CENTER CORE. THIS HOLDS THE CENTER CORE IN POSITION AT EACH 90° ROTATION OF THE CENTER CORE, THUS 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 90° OR 180° WITH THE SCREW DRIVER END OF A BRASS ROD, MATERIAL FLOW TO ONE OR SEVERAL CAVITIES CAN BE SHUT-OFF, AS SHOWN ABOVE.

> MRS-9999 5-96 ME-0516-PS-016-A



29111 STEPHENSON HIGHWAY MADISON HEIGHTS, MICHIGAN 48071 U.S.A. 1-800-626-6653

MRS-9999 5-96 U.S. PATENT NUMBER 5,208,053 INSTALLATION DATA FOR RUNNER SHUT-OFF INSERTS - METRIC ME-0516-PS-016-A Please read carefully before installing components STEP #1 - DIMENSIONS FOR MACHINING POCKET FOR RUNNER SHUT-OFF INSERTS (POCKETS ARE TYPICALLY BORED IN SOFT STEEL AND JIG GROUND IN HARDENED STEEL.) +.0000 +.0000 (13 MM DIA.) (26 MM DIA.) (16 MM DIA.) -0002 5118 DIA. -1.0236 DIA. -.6299 DIA. +.002 -.000 +.002 .875 .875 .59 +002 .020 R.-1.375 .020 R.+ DIA. 1.250 MAX. MIN. MAX. .020 R.-.22 .34 MAX. DIA. DIA CAT. NO. MRS-0013 CAT. NO. MRS-0016 CAT. NO. MRS-0026 NOTE: ALL DIMENSIONS ARE IN INCHES EXCEPT WHEN USING A 7/8 THICK PLATE WITH THE MRS-0013 OR MRS-0016 INSERTS, FOR A FEW METRIC REFERENCE DIMENSIONS WHICH ARE IN MILLIMETERS MACHINE THE 5118 OR .6299 DIAMETERS THRU THE PLATE. INSERT MUST SEAT AND ARE SHOWN IN PARENTHESIS. AGAINST A SUPPORTING PLATE BEFORE ANY GRINDING OR MACHINING IS DONE. STEP #2 - PRESSING INSERT INTO POCKET STEP #3 - DIMENSIONS FOR MACHINING RUNNERS -HOLE FOR SPRING PIN MUST BE LOCATED AWAY FROM AREA BRASS ROD WHERE RUNNERS ARE TO BE MACHINED, AS SHOWN. LOCATE HOLE FOR SPRING PIN AWAY FROM AREA WHERE .035 MIN. LAND BETWEEN EDGE RUNNERS ARE TO BE MACHINED. OF RUNNER AND EDGE OF THEN PRESS INSERT INTO HOLE FOR SPRING PIN. POCKET USING A BRASS ROD SPRING PIN HOLDS INSERT WHICH IS LARGER IN DIAMETER COMPONENTS IN POSITION THAN THE O.D. OF THE INSERT. FOR MACHINING RUNNERS -10° INSERT WILL PROTRUDE ABOVE PLATE APPROX. .010. TYP. MAX. MOLDMAKER TO GRIND IN ASSEMBLY TO SUIT. " D" NOTE: MAX. INSERT MUST BE BACKED-UP BY THE SHOULDER OF THE FOR MACHINING RUNNERS POCKET OR A SUPPORTING SHARP CARBIDE CUTTERS PLATE WHILE GRINDING OR ARE RECOMMENDED MACHINING, AND WHEN CENTERLINE OF INSERT ASSEMBLIED IN THE MOLD. RECOMMENDED RUNNER SIZES ~ W ~ R D-EQUIV. USE INSERT AREA STEP #4 - RELEASING LOCKING FEATURE CATALOG NO. WIDTH DEPTH RADIUS DIA. SQ.IN. . 099 .091 .040 .094 .007 MRS-0013 AFTER RUNNER HAS BEEN (MRS-0016 & 26) .125 .128 .120 .050 .012 FULLY MACHINED AND .151 .131 .062 .141 .016 POLISHED, DRIVE SPRING PIN .169 .144 .070 .156 MRS-0016 .019 DOWN INTO LOWER BODY. (MRS-0026) .186 .157 .078 .172 .023 THIS WILL ALLOW THE .187 .205 .175 .086 .027 CENTER CORE TO BE .037 .261 .218 .109 .218 ROTATED 90° OR 180° .298 .250 .125 .250 .049 WHEN IT IS DESIRED THAT .334 .281 .140 .281 062 MRS-0026 A RUNNER BE SHUT OFF .372 .312 .156 .312 .076 TO ONE OR MORE CAVITIES. .343 .410 .172 .343 .092 .187 .110 . 447 .375 .375