CAM Riser (CAM angle not shown)
- Note: All 3 sides fit Racks or CAM Risers
- Note: Racks can mount on one side or both sides, they are not shown.

P [see table for hydraulic fitting thread type]

Alignment Plates only locate the Hydraulic Cylinders Bottom Slot. The Metric M6 Bolts should not protrude thru the top of the Alignment Plates. Only the sides of the Alignment Plates should touch the Cylinder Slot. The Alignment Plates are NOT used to Mount the Hydraulic Cylinder to the Mold Base.

Hydraulic Cylinder
Mounting Bolt Clearance Holes
II Metric Bolts

J G

1-5/8"

Racks & CAM Riser
Extend from this side.

G/2

J/2

M6 Alignment Plate Bolt Hole

* - Note: Use ** E1 ** value instead of E2 if Hydraulic Cylinder Ports face the side instead of straight down

<table>
<thead>
<tr>
<th>Cylinder #</th>
<th>E2</th>
<th>E</th>
<th>G</th>
<th>J</th>
<th>[D-N-M]</th>
<th>II Cap Screw</th>
<th>P</th>
<th>* E1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZG-25-300</td>
<td>2.598&quot;</td>
<td>3</td>
<td>3.150&quot;</td>
<td>0.787&quot;</td>
<td>1.339&quot;</td>
<td>13.65&quot;</td>
<td>8 M5</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>ZG-25-400</td>
<td>4.567&quot;</td>
<td>3</td>
<td>3.150&quot;</td>
<td>0.787&quot;</td>
<td>1.339&quot;</td>
<td>17.79&quot;</td>
<td>8 M5</td>
<td>1/8&quot;</td>
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<tr>
<td>ZG-25-500</td>
<td>3.386&quot;</td>
<td>5</td>
<td>3.150&quot;</td>
<td>0.787&quot;</td>
<td>1.339&quot;</td>
<td>21.73&quot;</td>
<td>12 M5</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>ZG-40-300</td>
<td>2.598&quot;</td>
<td>3</td>
<td>3.150&quot;</td>
<td>1.181&quot;</td>
<td>1.732&quot;</td>
<td>13.65&quot;</td>
<td>8 M5</td>
<td>1/8&quot;</td>
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<td>21.73&quot;</td>
<td>12 M5</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>ZG-63-400</td>
<td>4.882&quot;</td>
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<td>3.150&quot;</td>
<td>1.969&quot;</td>
<td>2.756&quot;</td>
<td>18.46&quot;</td>
<td>8 M6</td>
<td>5/16&quot;</td>
</tr>
<tr>
<td>ZG-63-500</td>
<td>3.701&quot;</td>
<td>5</td>
<td>3.150&quot;</td>
<td>1.969&quot;</td>
<td>2.756&quot;</td>
<td>22.40&quot;</td>
<td>12 M6</td>
<td>5/16&quot;</td>
</tr>
</tbody>
</table>

BSPT = British Standard Pipe Taper
SAFETY CONSIDERATIONS

Safety Consideration - Mold Maker MUST fabricate boxes over the rack areas which move to protect against injury to personnel. Mold Maker MUST also put safety interlocks to prevent movement of Unscrewing Device if these protection boxes are removed for any reason.

Also, sheet metal should be used to cover areas where the gears are to prevent gear damage from loose debris falling between the gears and racks.

SAE Racks DP = Diametral Pitch, 20 Deg, Press. Angle
For Hydraulic Cylinder # ZG-25-XXX
Rack # ZZ 25 01 DP = 12 U = 1.500''

For Hydraulic Cylinder # ZG-40-XXX
Rack # ZZ 40 01 DP = 12 U = 1.750''

For Hydraulic Cylinder # ZG-63-XXX
Rack # ZZ 63 01 DP = 12 U = 2.625''

SAFETY PROTECTION BOX FABRICATED BY MOLD MAKER COMPLETELY COVERING FULL MOVEMENT OF UNSCREWING DEVICE

CAM Lifter Movement

Typical CAM Lifter, to be designed by Mold Maker / Designer, attaches to stripper plate

* = Stripper Cam Angle Beta

Control Cam Angle Alpha

Typical CAM Riser machining to be supplied by Mold Maker

CAM Riser shown without CAM angle Modifications

SAE CAM Risers
For Hydraulic Cylinder # ZG-25-XXX
CAM Riser # ZL 25 01 aa = 1.181'' V = 1.949'' cc = 2.855''

For Hydraulic Cylinder # ZG-40-XXX
CAM Riser # ZL 40 01 aa = 1.575'' V = 2.539'' cc = 3.641''

For Hydraulic Cylinder # ZG-63-XXX
CAM Riser # ZL 63 01 aa = 2.362'' V = 3.937'' cc = 5.827''

Hydraulic Pressure/Flow should be ramped from point A to B
The Hydraulic Flow should be limited so that from B to C a Maximum Rack travel speed of 18'' per second is NOT exceeded. Limit switches should be positioned by the mold builder at points B and C to start and stop the travel.