CAVITY INSERTS FOR GAS RELEASE

**Precision Standard**
- Standard for A ~ B surfaces.
- Shoulder bolt or hole for fixation.
- Parallel accuracy of upper and lower surfaces within 0.02mm.
- Squareness for A and B surfaces.

**Characteristics**
- Gas release groove (S) is processed on each plate. Specific number of each plate is combined to make gas release cavity insert block. (Figure 1)
- Since each plate is fixed only with a shoulder bolt (MSB), plugging by resin or tar can easily be removed by disassembling during maintenance.
- Gas as well as air is released from 0.03 or 0.05mm groove, lowering flow resistance and facilitating molding.
- It can be processed on bent surface to suit the shape of finished product. (See Example)
- Effective in relieving gas at time of mold processing in medium to large size molds.

**How to mount**
1. Insert where gas is apt to collect such as final finishing section.
2. Process bent surface to suit product type as necessary.
3. We recommend addition of relief groove in order to decrease resin plugging in gas release groove. Ideally, a relief groove should be added by alteration of 0.5 ~ 1.0mm thickness after leaving approximately 5 ~ 12mm of gas release groove section. (Figure 2)
4. All dimension tolerances are positive. Insert into mold by actual fitting process.
5. A tap hole is added on the bottom of cavity insert. It is for fixing the insert. (See Example)

**Note on handling**
1. Select 0.03 for groove depth when resin has a high fluidity, and 0.05 when resin has a low fluidity.
2. Be sure to identify bolt hole and tap hole on the inside of cavity insert in the blueprint when processing bent surface, so that it will not create any problem.
3. Note that tapering process on bent surface enlarges the groove area and may cause plugging.
4. Please be careful about mounting position since shape of the groove may appear on the finished product depending on the groove width and resin.
5. This product achieves dimensional precision by performing the final machining in shape of block which is a combination of each plate with gas release groove. Be sure to assemble in original order if you happen to disassemble it. If you can identify the correct order by the 0.1mm depth V groove in angled direction on the bottom of insert. Slight imbalance may occur by precision error in shoulder bolt and hole. Thus assembly should be done on a flat surface with dimension fitting.
6. Each plate for this product is a raw material. Note that it will be damaged if struck with hard object.

**Table**

<table>
<thead>
<tr>
<th>Number of plates</th>
<th>No. of grooves</th>
<th>Supplied bolts</th>
<th>Part Number</th>
<th>T</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>6</td>
<td>M8B4 ~ 25</td>
<td>BGV</td>
<td>40</td>
<td>0.03</td>
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<td>M8B4 ~ 25</td>
<td>BGV</td>
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<td>0.05</td>
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<td>BGV</td>
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<td>0.03</td>
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<td>10</td>
<td>M8B6 ~ 35</td>
<td>BGV</td>
<td>60</td>
<td>0.05</td>
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<tr>
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<td>10</td>
<td>M8B6 ~ 40</td>
<td>BGV</td>
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<td>0.05</td>
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<td>10</td>
<td>M8B6 ~ 55</td>
<td>BGV</td>
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<td>0.03</td>
</tr>
</tbody>
</table>

**Note**
CMK (Non-JIS material definition is listed on P 1351 ~ 1352)

**Figure 1**
- Example 1: Machining a relief groove on existing gas release groove.
- Example 2: Machining a relief groove on each plate parallel to bent surface.

**Figure 2**
- Cavity Inserts for Gas Release Example of relief groove addition