DAYSet® Compound Tooling & Die Sets

Available as individual tools, compound assemblies, or as ready-to-use die sets

DAYSet® Compound Tooling & pre-assembled die sets give you a complete, ready-to-use system for producing high-quality, cost-effective stampings. DAYSet® Compound Tooling eliminates the need and high cost for progressive dies, and the pre-assembled die set saves time and money (purchasing, assembly, testing, etc.). The DAYSet® System—based on the "Hovis Die" principle—is an improved design that gives you maximum end-product consistency and precision. Components can be ordered in sets or separately. Individual tools can be made to spec. (See inside for details.)
DAYSet® Compound Tooling

Product Description

Dayton DAYSet® Compound Tooling is a complete tooling system for producing high-quality, cost-effective stamped products in a single-step operation. The full set includes: an upper punch; a knockout; a die button; a stripper; and a lower punch (compound). All components can be ordered as a set or separately. All tools are designed to standard compound die set configurations, but assemblies can be made to your specifications.

Components include your choice of an ejector or regular punch for the upper assembly. All Dayton punches improve finished part quality and add longer tool life. Ejector punches (Dayton Jektole® Punches) are considered the standard in the industry, providing up to triple the number of cycles between punch regrinds, using increased clearance. Other system components are designed and manufactured to Dayton’s high standards.

DAYSet®—On the Cutting Edge

DAYSet® Compound Tooling System is an excellent choice for today’s washer manufacturers:

- Improved, leading-edge design
- Provides multiple stamping operations in a single step
- Top quality materials/made to exacting standards
- Less expensive/more accurate than progressive dies
- Ideal for shorter runs/high-quality products
- Faster delivery—10 working days for complete tooling sets (shorter delivery for individual parts)
DAYSet® Master Compound Die

Reliable, complete, one-step punching

The DAYSet® pre-assembled Master Compound Die is a precision-made die set that works with the compound tooling to provide a complete system for producing flat blanks (e.g., washers) in a single press stroke.

The DAYSet® Master Compound Die is a two-post steel die set with adjustable guides, a knockout, and a key aligned for irregular shapes. In addition to round shapes, it can be used to manufacture products with irregular shapes.

Tool changeover can be accomplished in under 15 minutes in a master die set (identical registry) without any manual alignment. Changeover to different tooling for a different size or shape part can be accomplished simply by removing screws.

The pre-assembled die set saves both time and money—the cost of specifying, purchasing, assembling, and testing. The DAYSet® Master Compound Die—used with the DAYSet® Compound Tooling—gives you a complete system ready for in-plant use.

The DAYSet® system—based on the “Hovis Die” principle—is an improved design that eliminates the need for high-cost progressive dies, saves you time and money, and gives you maximum end-product consistency.

Note: Proper clamping of the upper shoe should be used in addition to the shank per OSHA 1910.217(d)(7)
The complete DAYSet® assembly carries a product number and other pertinent information, as do the individual punches and other punch products. When ordering, please specify quantity, product type, OD, ID, MT (material thickness), total clearance, and class.

**Clearance & Class**

You can specify any class or clearance based on any thickness you require.

If the total class and clearance are not specified, 10% will be used. The chart to the right shows the class that will be used based on the thickness of the material. Any class or clearance may be specified for any thickness.

**Alterations**

Ejectors are available for knockouts (HTXKO). Specify "XEJ" on order. See "How to Order" example below.

Also available are a dowel pin slot on the OD of the knockout (HTXKO) and a dowel pin inserted into the die button to match the slot for radial location of both components. Specify "XRLD" on the order. See example below.

**DAYSet® Compound Tooling**

<table>
<thead>
<tr>
<th>Description Type</th>
<th>Size</th>
<th>Washer Size</th>
<th>Example</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punch Compound</td>
<td>150</td>
<td>.175-1.500</td>
<td>.075-.750</td>
<td></td>
</tr>
<tr>
<td>Ejector HTXEP</td>
<td>250</td>
<td>.175-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
<tr>
<td>Non-Ejector HTXR P</td>
<td>250</td>
<td>.075-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
<tr>
<td>Compound HTXCO</td>
<td>250</td>
<td>.175-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
<tr>
<td>Die Button HTXDB</td>
<td>250</td>
<td>.175-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
<tr>
<td>Knockout HTXKO</td>
<td>250</td>
<td>.175-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
<tr>
<td>Stripper HTXST</td>
<td>250</td>
<td>.175-.750</td>
<td>.200-1.500</td>
<td></td>
</tr>
</tbody>
</table>

**Material Thickness**

<table>
<thead>
<tr>
<th><strong>Component Fit Class</strong></th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>.005-.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.010-.020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;.020</td>
<td></td>
<td></td>
<td></td>
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</table>

**OD/ID Tolerance**

<table>
<thead>
<tr>
<th>Class</th>
<th>Fit</th>
<th>Add</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>1</td>
<td>.0002</td>
<td>.0005</td>
</tr>
</tbody>
</table>

**Surface Coatings**

- XNT: DayTiN® 3 days
- XCN: TCN 3 days

**DAYSet® Master Compound Die**

The master compound die comes in two (2) different sizes—1.500” and 2.500”. The chart below shows the die capacity, Shank size, and other relevant data in each category.

<table>
<thead>
<tr>
<th>Description Type</th>
<th>Shank Size</th>
<th>Center To Back</th>
<th>Center To Front</th>
<th>Left To Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Die Set HCDS 150</td>
<td>1 1/8&quot; O.D.</td>
<td>1 1/4&quot;</td>
<td>3&quot;</td>
<td>10 7/8&quot;</td>
</tr>
<tr>
<td>Die Set HCDS 250</td>
<td>2 1/2&quot; O.D.</td>
<td>2 1/8&quot;</td>
<td>5&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**

<table>
<thead>
<tr>
<th>Specify Type OD ID Alt.</th>
<th>*MT</th>
<th>Clearance</th>
<th>Total Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: 5 1</td>
<td>XCN</td>
<td>.030</td>
<td>.003</td>
</tr>
</tbody>
</table>

* Material thickness

www.daytonprogress.com
**Produce Top Quality Washers Quickly and Economically**

Hundreds of manufacturers produce tens of thousands of different types of washers every day. Washers made from aluminum, brass, copper, nylon, steel, and other materials. Washers of all shapes, sizes, and thickness. Washers used in machines, conveyor belts, suspension systems, tractors, cars, lawn mowers, etc.—in virtually any product that uses nuts and bolts or has moving parts.

The market for these products is large; however, the tools used to produce these washers—in spite of their seeming simplicity—must meet the highest standards for precision and durability. In addition, manufacturers must be innovative and competitive, always looking for new ways to produce these products.

If the manufacture of washers seems a viable choice for your operation, take a closer look at DAYSet®—a reliable, cost-effective, single-step punching method that allows you to deliver quality washers to customers in a wide range of industries.

**Industries Served**

- Aerospace
- Agricultural
- Automotive
- Consumer Goods
- Commercial Engines
- Factory Automation
- Marine
- Material Handling
- Medical/Scientific
- National Defense
- Pharmaceutical
- Trucks & Buses
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New!

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