Manley Valve Locks... simply the best!

Conventional vs. Bead Loc® Valve Stem Grooves

The groove in a valve stem, seemingly unimportant, in reality is vital to the success of a valve’s performance. Imperfectly formed grooves, inferior or mismatched locks, and improper retainers can lead to catastrophic failure.

The so-called “conventional” or square groove design has enjoyed enormous success. But the success of a “conventional” groove is dependent upon precise machining. First, the surface finish of the groove must be outstanding to guarantee against failure due to residual machining marks.

Next, the groove must have a precise .013” radius in the upper corner. Too small a radius leaves the groove subject to the dangers of a sharp fillet. Too large a radius leaves open the possibility of the groove being abraded in this area by the upper inside edge of the tang of the lock. Also, an oversized radius leaves a reduced horizontal shelf in the groove which is, or should be, the only contact point with the tang of the lock. Contact by the lock in the root of the groove is a disaster waiting to happen.

Perfectly formed “conventional” grooves with proper locks and retainers will deliver good service. However, there are sub-standard components on the market that can conspire to destroy a correctly machined groove.

The essence of the Bead Loc® groove is its simplicity and forgiveness. The groove itself is a straightforward .110” full radius. The contact points with a Bead Loc® radius lock are approximately 2:00 and 10:00 o’clock, not at the root of the groove. This system affords minimal vertical movement, especially when valve float is present, which means reduced erosion of the valve for enhanced service life.

Manley Performance supports both the “conventional” groove system and the Bead Loc® system with the most extensive line-up of the highest quality locks in the industry.
### 7° Stamped Valve Locks
- Stamped locks are recommended ONLY for mild performance engines

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Groove Type</th>
<th>Wgt./Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13238-16</td>
<td>16 pr.</td>
<td>5/16&quot;</td>
<td>Conventional</td>
<td>2.9 gms</td>
</tr>
<tr>
<td>13127-16</td>
<td>16 pr.</td>
<td>11/32&quot;</td>
<td>Conventional</td>
<td>3.2 gms</td>
</tr>
</tbody>
</table>

### 7° Machined Valve Locks
- Highest quality steel alloy
- Heat treated and black oxide finished

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Groove Type</th>
<th>Wgt./Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13086-32</td>
<td>32 pr.</td>
<td>.2345&quot;</td>
<td>Bead Loc® Ford 5.0L &quot;Coyote&quot; (4 Valve)</td>
<td>1.3 gms</td>
</tr>
<tr>
<td>13088-24</td>
<td>24 pr.</td>
<td>.2345&quot;-.2355&quot;</td>
<td>Bead Loc® Ford Modular 4.6L (3 Valve)</td>
<td>1.3 gms</td>
</tr>
<tr>
<td>13089-16</td>
<td>16 pr.</td>
<td>.2740&quot;-.2755&quot;</td>
<td>Bead Loc® Ford Modular 4.6L/5.4L (2 Valve)</td>
<td>1.9 gms</td>
</tr>
<tr>
<td>13089-32</td>
<td>32 pr.</td>
<td>.2740&quot;-.2755&quot;</td>
<td>Bead Loc® Ford Modular 4.6L/5.4L (4 Valve)</td>
<td>1.9 gms</td>
</tr>
<tr>
<td>13087-16</td>
<td>16 pr.</td>
<td>5/16&quot; (.3120&quot;)</td>
<td>Bead Loc® Ford 6.2L “Raptor” (2 Valve)</td>
<td>2.2 gms</td>
</tr>
<tr>
<td>13093-16</td>
<td>16 pr.</td>
<td>5/16&quot; (.3125&quot;)</td>
<td>Bead Loc® Chrysler Hemi 5.7L, 6.1L and 6.4L</td>
<td>2.2 gms</td>
</tr>
<tr>
<td>13094-16</td>
<td>16 pr.</td>
<td>8mm (.3135&quot;)</td>
<td>Single Radius Chevy LS, LT1 (.050&quot; less)</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>13098-16</td>
<td>16 pr.</td>
<td>8mm (.3135&quot;)</td>
<td>Single Radius Chevy LS, LT1 (Std.)</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>13095-16</td>
<td>16 pr.</td>
<td>8mm (.3135&quot;)</td>
<td>Single Radius Chevy LS, LT1 (.050&quot; more)</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>13090-16</td>
<td>16 pr.</td>
<td>5/16&quot; (.3100&quot;)</td>
<td>Conventional</td>
<td>3.2 gms</td>
</tr>
<tr>
<td>13091-16</td>
<td>16 pr.</td>
<td>11/32&quot;</td>
<td>Conventional</td>
<td>3.0 gms</td>
</tr>
<tr>
<td>13092-16</td>
<td>16 pr.</td>
<td>3/8&quot;</td>
<td>Conventional</td>
<td>3.5 gms</td>
</tr>
</tbody>
</table>
# Super 7° Valve Locks

## Steel Material
- Heat treated and black oxide finished
- Highest quality steel alloy
- Thicker for greater strength

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13050-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>8.2 gms</td>
</tr>
<tr>
<td>13051-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>8.2 gms</td>
</tr>
<tr>
<td>13052-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>8.2 gms</td>
</tr>
<tr>
<td>13080-16</td>
<td>16 pr.</td>
<td>.3110&quot;</td>
<td>Standard</td>
<td>Conventional</td>
<td>8.3 gms</td>
</tr>
<tr>
<td>13085-16</td>
<td>16 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; more</td>
<td>Conventional</td>
<td>8.2 gms</td>
</tr>
<tr>
<td>13060-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>7.4 gms</td>
</tr>
<tr>
<td>13061-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>7.4 gms</td>
</tr>
<tr>
<td>13062-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>7.4 gms</td>
</tr>
<tr>
<td>13081-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; less</td>
<td>Conventional</td>
<td>9.9 gms</td>
</tr>
<tr>
<td>13083-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Conventional</td>
<td>7.5 gms</td>
</tr>
<tr>
<td>13084-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Conventional</td>
<td>7.6 gms</td>
</tr>
</tbody>
</table>

## Titanium Material
- Lightweight titanium material
- PVD coated locks for easier disassembly in high spring pressure/high RPM applications

<table>
<thead>
<tr>
<th>Uncoated Titanium</th>
<th>PVD Coated Titanium</th>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>13030T-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>5.6 gms</td>
</tr>
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<td></td>
<td></td>
<td>13037T-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>4.9 gms</td>
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<td></td>
<td></td>
<td>13038T-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>4.6 gms</td>
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<tr>
<td></td>
<td></td>
<td>13050T-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>4.5 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13051T-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>4.5 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13052T-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>4.5 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13061T-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>4.1 gms</td>
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<tr>
<td></td>
<td></td>
<td>13062T-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>4.1 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13081T-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; less</td>
<td>Conventional</td>
<td>5.5 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13083T-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Conventional</td>
<td>4.2 gms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13084T-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Conventional</td>
<td>4.1 gms</td>
</tr>
</tbody>
</table>

## Super 7° “Captiv-Loc” Valve Locks
- Developed by Keith Dorton
- Encapsulates hard tip in titanium valve if it comes loose
- Use with valves with .290” to .330” tip lengths
- Available in steel and titanium material
- PVD coated locks for easier disassembly in high spring pressure/high RPM applications

<table>
<thead>
<tr>
<th>Steel</th>
<th>Uncoated Titanium</th>
<th>PVD Coated Titanium</th>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13039T-8</td>
<td>13039TCT-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>5.7 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13033T-8</td>
<td>13033TCT-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>9.5 / 5.6 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13034T-8</td>
<td>13034TCT-8</td>
<td>8 pr.</td>
<td>.3110&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>9.4 / 5.3 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13040T-8</td>
<td>13040TCT-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; less</td>
<td>Bead Loc®</td>
<td>5.0 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13035T-8</td>
<td>13035TCT-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>8.6 / 4.9 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13036T-8</td>
<td>13036TCT-8</td>
<td>8 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Bead Loc®</td>
<td>8.5 / 4.7 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13031T-16</td>
<td>13031T-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>Standard</td>
<td>Conventional</td>
<td>9.2 / 5.3 gms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13032T-16</td>
<td>13032T-16</td>
<td>16 pr.</td>
<td>.3415&quot;</td>
<td>.050&quot; more</td>
<td>Conventional</td>
<td>9.3 / 5.0 gms</td>
<td></td>
</tr>
</tbody>
</table>
8° Pro “900” Series
Titanium Material
- 0.500” Gage Diameter
- Lash Cap Recess
- PVD coated locks for easier disassembly in high spring pressure/high RPM applications

<table>
<thead>
<tr>
<th>PVD Coated Titanium</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13980TC-8</td>
<td>8 pr.</td>
<td>7mm / .2754”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>2.7</td>
</tr>
<tr>
<td>13990TC-8</td>
<td>8 pr.</td>
<td>7mm / .2754”</td>
<td>.050” more</td>
<td>Bead Loc®</td>
<td>2.6</td>
</tr>
<tr>
<td>13993TC-8</td>
<td>8 pr.</td>
<td>5/16” / .3100”</td>
<td>Standard</td>
<td>.048” Radius®</td>
<td>2.4</td>
</tr>
<tr>
<td>13994TC-8</td>
<td>8 pr.</td>
<td>5/16” / .3100”</td>
<td>.050” more</td>
<td>.048” Radius®</td>
<td>2.3</td>
</tr>
</tbody>
</table>

8° Pro “Top Loc” Series
Titanium Material
- 0.500” Gage Diameter
- PVD coated locks for easier disassembly in high spring pressure/high RPM applications

<table>
<thead>
<tr>
<th>PVD Coated Titanium</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13810TC-8</td>
<td>8 pr.</td>
<td>7mm / .2754”</td>
<td>Top Loc</td>
<td>Bead Loc®</td>
<td>3.1</td>
</tr>
<tr>
<td>13811TC-8</td>
<td>8 pr.</td>
<td>5/16” / .3100”</td>
<td>Top Loc</td>
<td>.048” Radius®</td>
<td>2.6</td>
</tr>
</tbody>
</table>

A better understanding of the 8° Pro “900” and “Top Loc” Series valve locks...

- Although 8°, these are NOT compatible with traditional Super 7° retainers. These MUST be paired with compatible .500” gage retainers.

- The Top Loc Series design places the locating tang at the top of the lock, resulting in all clamping BELOW the keeper groove of the valve.

- Both the Top Loc and the 900 Series utilize a thinner lock dimension (compared to Super 7°) which provides better conformability to the valve stem and allows for increased retainer cross-section, a plus when designing for smaller diameter valvesprings.

- The 900 Series features the same “thinner” design as the Top Loc but provides engine builders with installed height options they have enjoyed with Super 7° style locks for years.

- Lastly, make sure you order valves with the correct keeper groove specification as some locks work with traditional Manley Bead Loc grooves (.055” radius) while others mate with .048”radius grooves.
Precision Crafted 10° Machined Valve Locks

### Steel Material
- Highest quality steel alloy
- Heat treated and black oxide finished

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13171-8</td>
<td>8 pr.</td>
<td>7mm / .2740”</td>
<td>.050” less</td>
<td>Bead Loc®</td>
<td>7.4 gms</td>
</tr>
<tr>
<td>13170-8</td>
<td>8 pr.</td>
<td>7mm / .2740”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13172-8</td>
<td>8 pr.</td>
<td>.3075”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13190-8</td>
<td>16 pr.</td>
<td>.3085”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13191-8</td>
<td>16 pr.</td>
<td>.3085”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13192-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13193-16</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13194-16</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13195-16</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13196-16</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Conventional</td>
<td>6.7 gms</td>
</tr>
<tr>
<td>13150-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>.050” less</td>
<td>Bead Loc®</td>
<td>7.4 gms</td>
</tr>
<tr>
<td>13151-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>7.0 gms</td>
</tr>
<tr>
<td>13152-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>.050” more</td>
<td>Bead Loc®</td>
<td>6.4 gms</td>
</tr>
</tbody>
</table>

### BULK PRICING AVAILABLE

### Titanium Material
- Durable and lightweight
- PVD coated locks for easier disassembly in high spring pressure/high RPM applications

<table>
<thead>
<tr>
<th>Uncoated Titanium</th>
<th>PVD Coated Titanium</th>
<th>Quantity</th>
<th>Valve Stem</th>
<th>Installed Height</th>
<th>Groove Type</th>
<th>Wgt. / Pr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1317T-8</td>
<td>- - - - - - - - - - - 8 pr.</td>
<td>7mm / .2740”</td>
<td>.050” less</td>
<td>Bead Loc®</td>
<td>4.3 gms</td>
<td></td>
</tr>
<tr>
<td>13151T-8</td>
<td>13151TTC-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>3.9 gms</td>
</tr>
<tr>
<td>13152T-8</td>
<td>13152TTC-8</td>
<td>8 pr.</td>
<td>.3110”</td>
<td>.050” more</td>
<td>Bead Loc®</td>
<td>3.6 gms</td>
</tr>
<tr>
<td>13096T-16</td>
<td>- - - - - - - - - - - 16 pr.</td>
<td>.3110”</td>
<td>Standard</td>
<td>Conventional</td>
<td>3.8 gms</td>
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</tr>
<tr>
<td>13196T-16</td>
<td>- - - - - - - - - - - 16 pr.</td>
<td>.3110”</td>
<td>.050” more</td>
<td>Conventional</td>
<td>3.8 gms</td>
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</tr>
<tr>
<td>13153T-16</td>
<td>- - - - - - - - - - - 16 pr.</td>
<td>8mm (.3135”)</td>
<td>Standard</td>
<td>Single Radius Chevy LS</td>
<td>3.8 gms</td>
<td></td>
</tr>
<tr>
<td>13195T-16</td>
<td>- - - - - - - - - - - 16 pr.</td>
<td>.3715”</td>
<td>Standard</td>
<td>Conventional</td>
<td>3.5 gms</td>
<td></td>
</tr>
<tr>
<td>13161T-8</td>
<td>13161TTC-8</td>
<td>8 pr.</td>
<td>.3415”</td>
<td>Standard</td>
<td>Bead Loc®</td>
<td>3.6 gms</td>
</tr>
<tr>
<td>13162T-8</td>
<td>13162TTC-8</td>
<td>8 pr.</td>
<td>.3415”</td>
<td>.050” more</td>
<td>Bead Loc®</td>
<td>3.6 gms</td>
</tr>
<tr>
<td>13194T-16</td>
<td>13194TTC-16</td>
<td>16 pr.</td>
<td>.3415”</td>
<td>Standard</td>
<td>Conventional</td>
<td>3.5 gms</td>
</tr>
<tr>
<td>13195T-16</td>
<td>- - - - - - - - - - - 16 pr.</td>
<td>.3715”</td>
<td>Standard</td>
<td>Conventional</td>
<td>3.5 gms</td>
<td></td>
</tr>
</tbody>
</table>

P/N 13097 is NOT recessed to accept a wear cap
Manley Performance LocCap System

- The ULTIMATE valve lock/wear cap assembly
- Designed specifically for Fuel, Alcohol and Pro Mod Racers

First developed by our engineering team in the late 1990s for NASCAR applications, Manley's LocCap system is designed to retain the wear cap on the tip of the valve by employing an external bead on the wear cap that —when the system is assembled— resides within an internal "retention channel" located on the I.D. of the valve locks. Manley's valve train components group, headed by Manley GM Michael Tokarchik, refined the original designs combining a state-of-the-art steel alloy and ultra precise manufacturing techniques to achieve the goal of delivering a no compromises valve lock/wear cap assembly for the supercharged classes.

Manley's LocCap systems are available in true 7° as well as 10° and Super 7° assemblies for 3/8", 11/32" and 5/16" stem valves in both Manley Bead Loc® and conventional square groove configurations. In addition, Manley's LocCap system retrofits to competitors’ “Lash Keeper” assemblies, maintaining original valve spring installed height, valve overall length, valve tip length (.250") and retainer designs.

Both the LocCap valve locks and wear caps are precision machined using Manley's TensileMax UHSS (ultra high strength steel). The wear caps are thru-hardened to HRC 55 (harder than typical tool steel) to minimize wear due to aggressive rocker contact. Manley's proprietary heat treatment processes minimize distortion, thereby improving the fit of the wear cap and valve locks to the valve stem.

Valve Locks

<table>
<thead>
<tr>
<th>Valve Stem Size</th>
<th>7° Square Groove</th>
<th>10° Square Groove</th>
<th>Super 7° Bead Loc</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16&quot; (.3100&quot;)</td>
<td>13361-8</td>
<td>13394-8</td>
<td>13461-8</td>
</tr>
<tr>
<td>5/16&quot; (.3110&quot;)</td>
<td>13361-8</td>
<td>13394-8</td>
<td>13461-8</td>
</tr>
<tr>
<td>11/32&quot; (.3415&quot;)</td>
<td>13361-8</td>
<td>13394-8</td>
<td>13461-8</td>
</tr>
<tr>
<td>3/8&quot; (.3715&quot;)</td>
<td>13361-8</td>
<td>13394-8</td>
<td>13461-8</td>
</tr>
</tbody>
</table>

Note: -8 indicates one set of 8 pairs.

Valve Lock Weights (per pair):
- 13361 (5.0 gms), 13394 (4.4 gms)
- 13361 (5.0 gms), 13394 (4.2 gms)
- 13361 (6.9 gms), 13461 (6.5 gms)
- 13361 (6.3 gms), 13461 (5.8 gms), 13494 (6.4 gms), 13495 (5.6 gms)
- 13361 (10.1 gms), 13561 (9.3 gms)

LocCaps

<table>
<thead>
<tr>
<th>Valve Stem Size</th>
<th>Part No.</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/16&quot; (.3100&quot;)</td>
<td>42441-8</td>
<td>4.4 gms</td>
</tr>
<tr>
<td>5/16&quot; (.3110&quot;)</td>
<td>42439-8</td>
<td>4.3 gms</td>
</tr>
<tr>
<td>11/32&quot; (.3415&quot;)</td>
<td>42404-8</td>
<td>4.1 gms</td>
</tr>
<tr>
<td>3/8&quot; (.3715&quot;)</td>
<td>42408-8</td>
<td>3.4 gms</td>
</tr>
</tbody>
</table>

Note: LocCap thickness above valve tip is .106"

Titanium Retainers

<table>
<thead>
<tr>
<th>Valve Spring Type</th>
<th>Valve Spring Part No.</th>
<th>7° Tensile Max Part No.</th>
<th>7° +.100&quot; Tensile Max Part No.</th>
<th>10° Tensile Std. Part No.</th>
<th>10° +.100&quot; Tensile Max Part No.</th>
<th>10° +.170&quot; Tensile Max Part No.</th>
<th>Super 7° Bead Loc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Double Springs</td>
<td>221420, 1455, 1456, 1457, 1460, 1461</td>
<td>23675-16</td>
<td>23675-16*</td>
<td>23684-16</td>
<td>23676-16</td>
<td>23683-16*</td>
<td>23701-16*</td>
</tr>
<tr>
<td>Steel Triple Springs</td>
<td>221447, 1448, 1449, 1450</td>
<td>23673-16</td>
<td>-</td>
<td>-</td>
<td>23653-16</td>
<td>23753-16*</td>
<td>-</td>
</tr>
<tr>
<td>Titanium Double Spring</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>23668-16*</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Note: -16 indicates 16 pieces.
**WEAR CAPS**

**Inserted Tips**
- Wear resistant thru-hardened H-13 tool steel alloy
- Ideal titanium valve tip protection

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Material</th>
<th>Description</th>
<th>Knurl Diameter</th>
<th>Post Length</th>
<th>O.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>42311-8</td>
<td>8 pcs.</td>
<td>H-13</td>
<td>Fits .3085”-.3130” valves</td>
<td>.183”</td>
<td>.120”</td>
<td>.316”</td>
</tr>
<tr>
<td>42413-8</td>
<td>8 pcs.</td>
<td>H-13</td>
<td>Fits .3133”-.3136” valves</td>
<td>.183”</td>
<td>.120”</td>
<td>.318”</td>
</tr>
<tr>
<td>42105-8</td>
<td>8 pcs.</td>
<td>H-13</td>
<td>Fits 11/32” valves</td>
<td>.193”</td>
<td>.120”</td>
<td>.347”</td>
</tr>
</tbody>
</table>

**Wear Caps**
- Thru-hardened 4140 alloy steel
- Special heat treatment to HRC 50-54
- Non rotating caps afford less valve tip erosion

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Minimum Tip</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>42263-8</td>
<td>8 pcs.</td>
<td>.2165” stem valves (5.5mm)</td>
<td>.250”</td>
<td>Standard</td>
<td>.225”</td>
<td>.085”</td>
<td>.425”</td>
<td>2.9 gms</td>
</tr>
<tr>
<td>42254-8</td>
<td>8 pcs.</td>
<td>.2360” stem valves (6mm)</td>
<td>.275”</td>
<td>Non Rotating</td>
<td>.235”</td>
<td>.060”</td>
<td>.385”</td>
<td>2.5 gms</td>
</tr>
<tr>
<td>42264-8</td>
<td>8 pcs.</td>
<td>.2360” stem valves (6mm)</td>
<td>.095”</td>
<td>Standard</td>
<td>.090”</td>
<td>.040”</td>
<td>.300”</td>
<td>0.6 gms</td>
</tr>
<tr>
<td>42100-8</td>
<td>8 pcs.</td>
<td>.2740” stem valves (7mm)</td>
<td>.250”</td>
<td>Standard</td>
<td>.225”</td>
<td>.085”</td>
<td>.425”</td>
<td>2.9 gms</td>
</tr>
<tr>
<td>42118-8</td>
<td>8 pcs.</td>
<td>.2740” stem valves (7mm)</td>
<td>.290”</td>
<td>Non Rotating</td>
<td>.270”</td>
<td>.080”</td>
<td>.385”</td>
<td>2.5 gms</td>
</tr>
<tr>
<td>42110-8</td>
<td>8 pcs.</td>
<td>.2754” stem valves (7mm)</td>
<td>.250”</td>
<td>Standard</td>
<td>.225”</td>
<td>.085”</td>
<td>.425”</td>
<td>2.9 gms</td>
</tr>
<tr>
<td>42101-16</td>
<td>16 pcs.</td>
<td>.3085” stem valves (5/16”)</td>
<td>.250”</td>
<td>Standard</td>
<td>.225”</td>
<td>.080”</td>
<td>.425”</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>42139-8</td>
<td>8 pcs.</td>
<td>.3110” stem valves (5/16”)</td>
<td>.250”</td>
<td>Standard</td>
<td>.210”</td>
<td>.080”</td>
<td>.425”</td>
<td>2.4 gms</td>
</tr>
<tr>
<td>42300-8</td>
<td>8 pcs.</td>
<td>.3110” stem valves (5/16”)</td>
<td>.250”</td>
<td>Non Rotating</td>
<td>.210”</td>
<td>.080”</td>
<td>.425”</td>
<td>2.3 gms</td>
</tr>
<tr>
<td>42125-8</td>
<td>8 pcs.</td>
<td>.3130” stem valves (8mm)</td>
<td>.130”</td>
<td>Standard</td>
<td>.170”</td>
<td>.080”</td>
<td>.425”</td>
<td>2.1 gms</td>
</tr>
<tr>
<td>42104-16</td>
<td>16 pcs.</td>
<td>.3415” stem valves (11/32”)</td>
<td>.250”</td>
<td>Standard</td>
<td>.210”</td>
<td>.080”</td>
<td>.455”</td>
<td>2.7 gms</td>
</tr>
<tr>
<td>42301-8</td>
<td>8 pcs.</td>
<td>.3415” stem valves (11/32”)</td>
<td>.250”</td>
<td>Non Rotating</td>
<td>.210”</td>
<td>.080”</td>
<td>.455”</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>42108-16</td>
<td>16 pcs.</td>
<td>.3715” stem valves (3/8”)</td>
<td>.220”</td>
<td>Standard</td>
<td>.175”</td>
<td>.080”</td>
<td>.485”</td>
<td>2.7 gms</td>
</tr>
</tbody>
</table>

**TensileMax Wear Caps**
- Precision machined from TensileMax UHSS (Ultra High Strength Steel)
- Thru-hardened to HRC55 to minimize wear due to aggressive rocker contact
- Proprietary heat treatment processes minimize distortion

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Minimum Tip</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>42100TM-8</td>
<td>8 pcs.</td>
<td>.2740” stem valves (7mm)</td>
<td>.250”</td>
<td>Standard</td>
<td>.225”</td>
<td>.085”</td>
<td>.425”</td>
<td>3.0 gms</td>
</tr>
<tr>
<td>42139TM-8</td>
<td>8 pcs.</td>
<td>.3110” stem valves (5/16”)</td>
<td>.250”</td>
<td>Standard</td>
<td>.210”</td>
<td>.080”</td>
<td>.425”</td>
<td>2.6 gms</td>
</tr>
<tr>
<td>42104TM-16</td>
<td>16 pcs.</td>
<td>.3415” stem valves (11/32”)</td>
<td>.250”</td>
<td>Standard</td>
<td>.210”</td>
<td>.080”</td>
<td>.455”</td>
<td>2.7 gms</td>
</tr>
</tbody>
</table>
Viton Material Valve Stem Seals

- A necessity when using NexTek® triple valve springs.
- Special design allows clearance inside small I.D. springs.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Guide O.D.</th>
<th>Installed Seal O.D.</th>
<th>Use Cutter No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24041-8</td>
<td>8 pcs.</td>
<td>.274” / 7mm valves</td>
<td>.431”</td>
<td>.566”</td>
<td>41410</td>
</tr>
<tr>
<td>24040-8</td>
<td>8 pcs.</td>
<td>.5/16” / 8mm valves</td>
<td>.420”</td>
<td>.566”</td>
<td>41510</td>
</tr>
<tr>
<td>24042-8</td>
<td>8 pcs.</td>
<td>.5/16” / 8mm valves</td>
<td>.500”</td>
<td>.608”</td>
<td>41610</td>
</tr>
<tr>
<td>24043-8</td>
<td>8 pcs.</td>
<td>.5/16” / 8mm valves</td>
<td>.530”</td>
<td>.677”</td>
<td>41710</td>
</tr>
<tr>
<td>24045-8</td>
<td>8 pcs.</td>
<td>.11/32” valves</td>
<td>.500”</td>
<td>.620”</td>
<td>41611</td>
</tr>
<tr>
<td>24044-8</td>
<td>8 pcs.</td>
<td>.3/8” valves</td>
<td>.500”</td>
<td>.623”</td>
<td>41612</td>
</tr>
<tr>
<td>24046-8</td>
<td>8 pcs.</td>
<td>.3/8” valves</td>
<td>.530”</td>
<td>.677”</td>
<td>41712</td>
</tr>
</tbody>
</table>

All Teflon Valve Stem Seals

- Spring loaded wiper to remove excess oil

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Guide O.D.</th>
<th>Use Cutter No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24029-16</td>
<td>16 pcs.</td>
<td>5/16” valves</td>
<td>.500”</td>
<td>41610</td>
</tr>
<tr>
<td>24034-16</td>
<td>16 pcs.</td>
<td>5/16” valves</td>
<td>.530”</td>
<td>41710</td>
</tr>
<tr>
<td>24037-16</td>
<td>16 pcs.</td>
<td>11/32” valves</td>
<td>.500”</td>
<td>41611</td>
</tr>
<tr>
<td>24039-16</td>
<td>16 pcs.</td>
<td>3/8” valves</td>
<td>.500”</td>
<td>41612</td>
</tr>
<tr>
<td>24036-16</td>
<td>16 pcs.</td>
<td>3/8” valves</td>
<td>.530”</td>
<td>41712</td>
</tr>
</tbody>
</table>

Valve Guide Seal Cutters

- Carbide tipped cutters
- Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Guide O.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>41410</td>
<td>1</td>
<td>.274” / 7mm valves</td>
<td>.431”</td>
</tr>
<tr>
<td>41510</td>
<td>1</td>
<td>.5/16” / 8mm valves</td>
<td>.420”</td>
</tr>
<tr>
<td>41610</td>
<td>1</td>
<td>.5/16” / 8mm valves</td>
<td>.500”</td>
</tr>
<tr>
<td>41710</td>
<td>1</td>
<td>.5/16” / 8mm valves</td>
<td>.530”</td>
</tr>
<tr>
<td>41611</td>
<td>1</td>
<td>.11/32” valves</td>
<td>.500”</td>
</tr>
<tr>
<td>41711</td>
<td>1</td>
<td>.11/32” valves</td>
<td>.530”</td>
</tr>
<tr>
<td>41612</td>
<td>1</td>
<td>.3/8” valves</td>
<td>.500”</td>
</tr>
<tr>
<td>41712</td>
<td>1</td>
<td>.3/8” valves</td>
<td>.530”</td>
</tr>
</tbody>
</table>

Valve Guide Seal Cutter Pilot

- For use with any spring seat or seal cutter

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>41274</td>
<td>1</td>
<td>7mm cutter pilot</td>
</tr>
<tr>
<td>41516</td>
<td>1</td>
<td>5/16” cutter pilot</td>
</tr>
<tr>
<td>41132</td>
<td>1</td>
<td>11/32” cutter pilot</td>
</tr>
<tr>
<td>41138</td>
<td>1</td>
<td>3/8” cutter pilot</td>
</tr>
</tbody>
</table>

Bronze Valve Guides

- .502” O.D.
- 1.625” length under flange
- Threaded seal area above flange

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12081-8</td>
<td>8 pcs.</td>
<td>Bronze insert guide - .274” I.D.</td>
</tr>
<tr>
<td>12084-8</td>
<td>8 pcs.</td>
<td>Bronze insert guide - .311” I.D.</td>
</tr>
</tbody>
</table>
Professional Rocker Arm Screw-In Studs

- 8740 material with 190,000 psi tensile strength
- Rolled threads
- Large radii
- Flat poly lock surface

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Application</th>
<th>Roller Rockers</th>
<th>Stud Girdles</th>
<th>Upper Threads</th>
<th>A</th>
<th>Dimensions B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>42276-16</td>
<td>16 pcs.</td>
<td>SB Chevy &amp; Ford</td>
<td>Yes</td>
<td>No</td>
<td>3/8&quot;</td>
<td>2.425&quot;</td>
<td>.670&quot;</td>
<td>.945&quot;</td>
<td>.810&quot;</td>
</tr>
<tr>
<td>42277-16</td>
<td>16 pcs.</td>
<td>SB Chevy &amp; Ford</td>
<td>Yes</td>
<td>No</td>
<td>7/16&quot;</td>
<td>2.440&quot;</td>
<td>.660&quot;</td>
<td>.890&quot;</td>
<td>.890&quot;</td>
</tr>
<tr>
<td>42287-16</td>
<td>16 pcs.</td>
<td>SB Chevy</td>
<td>Yes</td>
<td>Yes</td>
<td>7/16&quot;</td>
<td>2.850&quot;</td>
<td>.750&quot;</td>
<td>1.300&quot;</td>
<td>.800&quot;</td>
</tr>
<tr>
<td>42288-16</td>
<td>16 pcs.</td>
<td>SB &amp; BB Chevy</td>
<td>Yes</td>
<td>Yes</td>
<td>7/16&quot;</td>
<td>2.810&quot;</td>
<td>.740&quot;</td>
<td>1.020&quot;</td>
<td>1.050&quot;</td>
</tr>
<tr>
<td>42287-16</td>
<td>16 pcs.</td>
<td>BB Chevy</td>
<td>Yes</td>
<td>No</td>
<td>7/16&quot;</td>
<td>2.850&quot;</td>
<td>.750&quot;</td>
<td>1.300&quot;</td>
<td>.800&quot;</td>
</tr>
<tr>
<td>42256-16</td>
<td>16 pcs.</td>
<td>BB Chevy w/ poly</td>
<td>Yes</td>
<td>Yes</td>
<td>7/16&quot;</td>
<td>2.580&quot;</td>
<td>.820&quot;</td>
<td>.900&quot;</td>
<td>.860&quot;</td>
</tr>
<tr>
<td>42266-16</td>
<td>16 pcs.</td>
<td>Mark V w/ 3/8&quot;</td>
<td>Yes</td>
<td>No</td>
<td>3/8&quot;</td>
<td>2.600&quot;</td>
<td>.775&quot;</td>
<td>.885&quot;</td>
<td>1.000&quot;</td>
</tr>
<tr>
<td>42293-8</td>
<td>8 pcs.</td>
<td>BB Chevy w/ Dart</td>
<td>Yes</td>
<td>Yes</td>
<td>7/16&quot;</td>
<td>3.300&quot;</td>
<td>1.300&quot;</td>
<td>1.000&quot;</td>
<td>1.000&quot;</td>
</tr>
</tbody>
</table>

Street Master Rocker Arm Screw-In Studs

- Special maxalloy steel
- Rolled threads

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Roller Rockers</th>
<th>Stud Girdles</th>
<th>Upper Threads</th>
<th>A</th>
<th>Dimensions B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>42106-16</td>
<td>16 pcs.</td>
<td>SB Chevy &amp; Ford</td>
<td>Yes</td>
<td>No</td>
<td>3/8&quot;</td>
<td>2.560&quot;</td>
<td>.690&quot;</td>
<td>.840&quot;</td>
<td>1.030&quot;</td>
</tr>
<tr>
<td>42107-16</td>
<td>16 pcs.</td>
<td>SB Chevy &amp; Ford with poly locks</td>
<td>Yes</td>
<td>No</td>
<td>3/8&quot;</td>
<td>2.420&quot;</td>
<td>.690&quot;</td>
<td>.920&quot;</td>
<td>.810&quot;</td>
</tr>
<tr>
<td>42103-16</td>
<td>16 pcs.</td>
<td>SB Chevy, BB Chevy</td>
<td>Yes</td>
<td>Yes</td>
<td>7/16&quot;</td>
<td>2.550&quot;</td>
<td>.790&quot;</td>
<td>.890&quot;</td>
<td>.870&quot;</td>
</tr>
</tbody>
</table>

Professional Rocker Arm Adjusting Nuts

- Special chrome moly hex material
- Heat treated and black oxide
- Set screws and allen wrench included

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42107-16</td>
<td>16 pcs.</td>
<td>All 3/8&quot; stud Chevys, Fords, Pontiacs</td>
</tr>
<tr>
<td>42112-16</td>
<td>16 pcs.</td>
<td>All 7/16&quot; stud Chevys and Fords (.580&quot; Body Diameter)</td>
</tr>
</tbody>
</table>

Small Block Chevrolet Stamped Steel Rocker Arm Kits

- Highest quality steel
- Heat treated
- Long slots to avoid stud interference
- Kits include oil grooved rocker balls and nuts
- These rockers are the non “self-aligning” type used from 1955 to 1989.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Stud Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>43140</td>
<td>1 set for 1 head</td>
<td>Small Block - Long Slot 1.5 Ratio</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>43150</td>
<td>1 set for 1 head</td>
<td>Small Block - Long Slot 1.6 Ratio</td>
<td>3/8&quot;</td>
</tr>
</tbody>
</table>

ROCKER ARM KIT COMPONENTS

Note: Individual rockers only are sold as -8, and rocker balls and rocker nuts are sold as -16. Kits include only 8 pieces of each part.

<table>
<thead>
<tr>
<th>Kit</th>
<th>Rocker</th>
<th>Ball</th>
<th>Nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>43140</td>
<td>43141-8</td>
<td>43142-16</td>
<td>43143-16</td>
</tr>
<tr>
<td>43150</td>
<td>43151-8</td>
<td>43142-16</td>
<td>43143-16</td>
</tr>
</tbody>
</table>

MANLEY
Steel Guide Plates

- Meticulously crafted stamping
- Heat treated and black oxide finished

Small Block Chevrolet
Raised Guide Plate

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Slots</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42151-8</td>
<td>8 pcs.</td>
<td>Small Block Chevy</td>
<td>On-Center</td>
<td>5/16”</td>
</tr>
<tr>
<td>42150-8</td>
<td>8 pcs.</td>
<td>Small Block Chevy</td>
<td>On-Center</td>
<td>3/8”</td>
</tr>
</tbody>
</table>

Small Block Chevrolet
Flat Guide Plate

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Slots</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42355-8</td>
<td>8 pcs.</td>
<td>Small Block Chevy</td>
<td>On-Center</td>
<td>5/16”</td>
</tr>
<tr>
<td>42356-8</td>
<td>8 pcs.</td>
<td>Small Block Chevy</td>
<td>On-Center</td>
<td>3/8”</td>
</tr>
</tbody>
</table>

Big Block Chevrolet

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42164-8</td>
<td>8 pcs.</td>
<td>Big Block Chevy</td>
<td>3/8”</td>
</tr>
<tr>
<td>42149-8</td>
<td>8 pcs.</td>
<td>Big Block Chevy</td>
<td>7/16”</td>
</tr>
</tbody>
</table>

Ford 289 - 302 - 351W
Pre 1977 Heads

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42152-8</td>
<td>8 pcs.</td>
<td>289, 302 W, 351 W Ford</td>
<td>5/16”</td>
</tr>
</tbody>
</table>

Ford 302 Boss - 351C
With Modified Heads

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42163-8</td>
<td>8 pcs.</td>
<td>302 Boss, 351 C Modified</td>
<td>5/16”</td>
</tr>
<tr>
<td>42156-8</td>
<td>8 pcs.</td>
<td>302 Boss, 351 C Modified</td>
<td>3/8”</td>
</tr>
</tbody>
</table>

To convert Ford 351C engines to adjustable rocker arms and pushrod guide plates, machine the old rocker stanchions down to a height of .550” as measured from the adjacent head bolt spot face with cutter 41860. Drill and tap the old screw hole to accept stud 42277.

Ford 429 - 460

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Pushrods</th>
</tr>
</thead>
<tbody>
<tr>
<td>42166-8</td>
<td>8 pcs.</td>
<td>429, 460 Ford</td>
<td>5/16”</td>
</tr>
<tr>
<td>42160-8</td>
<td>8 pcs.</td>
<td>429, 460 Ford</td>
<td>3/8”</td>
</tr>
</tbody>
</table>
Superior Head Bolts

- 180,000 psi tensile strength
- Longer than stock for use with washers
- Improved wrenchability with 1/2” hex head

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42193</td>
<td>1 set for 1 head</td>
<td>Chevrolet V-6</td>
</tr>
<tr>
<td>42171</td>
<td>1 set for 1 head</td>
<td>SB Chevy V-8</td>
</tr>
<tr>
<td>42312</td>
<td>1 set for 1 head</td>
<td>SB Chevy, Brodix - 12 and Pontiac 10093328 castings</td>
</tr>
<tr>
<td>42313</td>
<td>1 set for 1 head</td>
<td>SB Chevy, Brodix aluminum and Pontiac 10033867</td>
</tr>
<tr>
<td>42170</td>
<td>1 set for 1 head</td>
<td>BB Chevy</td>
</tr>
<tr>
<td>42180</td>
<td>1 set for 1 head</td>
<td>BB Chevy with Dart Pro 1 heads</td>
</tr>
<tr>
<td>42192</td>
<td>1 set for 1 head</td>
<td>BB Chevy with Brodix heads, Merlin II Aluminum</td>
</tr>
<tr>
<td>42322</td>
<td>1 set for 1 head</td>
<td>BB Chevy with Chevy Bow Tie, Dart Aluminum and Merlin heads</td>
</tr>
<tr>
<td>42178</td>
<td>1 set for 1 head</td>
<td>Chrysler 383-440</td>
</tr>
<tr>
<td>42198</td>
<td>1 set for 1 head</td>
<td>Indy Cylinder Head 440-1 BB Chrysler head</td>
</tr>
</tbody>
</table>

Single Head Bolts

- Bolts used in above pre-packaged sets

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Under Head Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolt 1</td>
<td>1 pc.</td>
<td>4.210”</td>
</tr>
<tr>
<td>Bolt 2</td>
<td>1 pc.</td>
<td>2.100”</td>
</tr>
<tr>
<td>Bolt 3</td>
<td>1 pc.</td>
<td>1.685”</td>
</tr>
<tr>
<td>Bolt 4</td>
<td>1 pc.</td>
<td>3.125”</td>
</tr>
<tr>
<td>Bolt 5</td>
<td>1 pc.</td>
<td>3.840”</td>
</tr>
<tr>
<td>Bolt 6</td>
<td>1 pc.</td>
<td>5.200”</td>
</tr>
</tbody>
</table>

Hardened Head Bolt Washers

- Special heat treatment to prevent galling

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42102</td>
<td>34 pcs.</td>
<td>All Chevys, 289-351 Fords, .760” O.D., 7/16” I.D., .125” thick</td>
</tr>
<tr>
<td>42127</td>
<td>20 pcs.</td>
<td>All Chrysler, Pontiacs, 390-427 Fords, .875” O.D., 1/2” I.D., .105” thick</td>
</tr>
<tr>
<td>42136</td>
<td>34 pcs.</td>
<td>Ideal washers for aluminum heads. 7/16” I.D. but larger .935” O.D. for better fit in aftermarket aluminum heads, .125” thick</td>
</tr>
</tbody>
</table>

Hard To Find “AN” Washers

- .060” thick

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>I.D.</th>
<th>O.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>42194</td>
<td>12 pcs.</td>
<td>5/16”</td>
<td>9/16”</td>
</tr>
<tr>
<td>42195</td>
<td>12 pcs.</td>
<td>3/8”</td>
<td>5/8”</td>
</tr>
<tr>
<td>42196</td>
<td>12 pcs.</td>
<td>7/16”</td>
<td>3/4”</td>
</tr>
</tbody>
</table>

Note: New part numbers are BOLD & ITALICIZED
Hex Head Intake Manifold Bolts

- P/N 42175 and 42176 have gold irridite finished bolts and hardened washers
- P/N 42177 has black oxide finished bolts and hardened washers

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Underhead Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>42176</td>
<td>1 set</td>
<td>Small Block Chevrolet</td>
<td>1.250”</td>
</tr>
<tr>
<td>42177</td>
<td>1 set</td>
<td>Small Block Chevrolet using thin casting hi-rise manifolds</td>
<td>1.000”</td>
</tr>
<tr>
<td>42175</td>
<td>1 set</td>
<td>Big Block Chevrolet</td>
<td>1.250”</td>
</tr>
<tr>
<td>42294-16</td>
<td>16 pcs.</td>
<td>Hardened washers for 42175 &amp; 42176 bolts. .100” thick. Gold Irridite</td>
<td></td>
</tr>
<tr>
<td>42299-16</td>
<td>16 pcs.</td>
<td>Hardened washers for 42177 bolts. .125” thick. Black oxide</td>
<td></td>
</tr>
</tbody>
</table>

12 Point Head Intake Manifold Bolts

- Bolts and washers with gold irrudite finish
- Shipped with hardened washers

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
<th>Underhead Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>42292</td>
<td>1 set</td>
<td>Small Block Chevrolet, Chrysler “A” and “B” engines</td>
<td>1.125”</td>
</tr>
<tr>
<td>42291</td>
<td>1 set</td>
<td>Big Block Chevrolet using thin casting hi-rise manifolds</td>
<td>1.125”</td>
</tr>
<tr>
<td>42294-16</td>
<td>16 pcs.</td>
<td>Hardened washers for above bolts. .100” thick. Gold Irridite</td>
<td></td>
</tr>
</tbody>
</table>

Front Timing Cover Bolts

- Special flange for greater “wrenchability”
- Integral lock washer

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42174</td>
<td>1 set</td>
<td>Small and Big Block Chevys-black oxide</td>
</tr>
<tr>
<td>42179</td>
<td>1 set</td>
<td>Small and Big Block Chevys-gold irrudite</td>
</tr>
</tbody>
</table>

Oil Pan Bolts

- Special flange for greater “wrenchability”
- Integral lock washer

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42173</td>
<td>1 set</td>
<td>Small Block Chevrolet - black oxide</td>
</tr>
<tr>
<td>42189</td>
<td>1 set</td>
<td>Small Block Chevrolet - gold irrudite</td>
</tr>
<tr>
<td>42172</td>
<td>1 set</td>
<td>Big Block Chevrolet - black oxide</td>
</tr>
<tr>
<td>42188</td>
<td>1 set</td>
<td>Big Block Chevrolet - gold irrudite</td>
</tr>
</tbody>
</table>
NexTek® Series Valve Springs

...Better By Design

- Manufactured from “super clean” Hi-Tensile Chrome Silicon steel
- Tip thickness designed to eliminate overload breakage
- Many part numbers available fully polished or Super Finished
- Shot-peened to MIL spec for maximum fatigue life
- Computer-aided modeling or designs minimizes valve bounce and valve gear separation

Tightly controlled open end flatness reduces valve stem side loading
Proprietary multi-step heat treating minimizes load loss
Optimized “Select Size Fitting” between outer and inner springs to maximize harmonic dampening and reduce heat generated during operation
Many offerings are a damperless design which eliminates unnecessary damper weight and reduces retainer wear

Nitro F/C Driver: Jonnie Lindberg

Recent content extraction for this page included: NexTek® Series Valve Springs, Nitro F/C Driver: Jonnie Lindberg.
### NexTek® Series

**Lightweight Dual Drag Race Valve Springs**

- Higher natural frequency and lower active mass provides improved valvetrain control and higher RPM potential
- Dual spring design reduces friction, which generates less heat and translates into greatly reduced load loss
- Extensively tested on the Spintron, dyno and race track (including blown nitro engines) and proven highly effective
- Smaller diameter, lightweight dual design allows engine to rev higher with improved valve train control
- Accepts smaller, lighter retainers which also promotes higher revs
- Ultra clean, high tensile strength chrome silicon material
- Super Finished multi-step surface enhancement significantly improves fatigue strength
- Ideal loads for multiple applications with minimal load loss

**Part No.** | **Description** | **Maximum Valve Lift** | **O.D.** | **I.D.** | **Installed / Open Pressure** | **Rate (lbs. / in.)** | **Coil Bind** | **Weight (grams)** | **Component Code**
---|---|---|---|---|---|---|---|---|---
221420-16 | Super Stock Competition Eliminator | 0.850 | 1.500 | 0.710 | 275 @ 2.050, 940 @ 1.200 | 780 | 1.130 | 136 | A
221455-16 | Competition Eliminator Alcohol & Fuel Classes | 1.000 | 1.500 | 0.710 | 450 @ 2.175, 1250 @ 1.175 | 797 | 1.130 | 143 | A
221465-16 | Super Stock Competition Eliminator | 0.900 | 1.500 | 0.710 | 330 @ 2.100, 1050 @ 1.200 | 800 | 1.130 | 139 | A
221457-16 | Super Stock Competition Eliminator | 0.950 | 1.500 | 0.710 | 405 @ 2.150, 1165 @ 1.200 | 800 | 1.130 | 150 | A
221460-16 | Alcohol & Fuel Classes, Pro Mod | 0.950 | 1.522 | 0.710 | 440 @ 2.250, 1340 @ 1.300 | 948 | 1.255 | 154 | A
221461-16 | Alcohol & Fuel Classes, Pro Mod | 1.000 | 1.540 | 0.710 | 425 @ 2.300, 1389 @ 1.300 | 964 | 1.215 | 154 | A

See pages 78-79 for comprehensive load charts

---

### Component Code

- **A**
  - 23675-16 | 7° ( +.100 for 7° LocCap )
  - 23677-16 | 7° ( +.100 for 7° LocCap ) Ti-17 Alloy
  - 23684-16 | 10° Std. Installed
  - 23676-16 | 10° ( +.100 )
  - 23679-16 | 10° ( +.100 ) Lightweight Ti-17 Alloy
  - 23683-16 | 10° ( +.170 ) Lightweight Ti-17 Alloy
  - 23701-16 | Super 7° Lightweight Ti-17 Alloy
NexTek® Series
Drag Race Valve Springs

- Unequalled performance
- All springs are triple except 221424, 221425 & 221454 which are double w/o damper
- Better valve train stability and component life
- Ideally suited for Sportsman Drag Racing applications

All Manley NexTek® valve springs listed below are available in Polished versions to reduce friction, improve fatigue life and minimize load loss. For example 221449P-16.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Polished Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coil Bind (grams)</th>
<th>Weight Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221424-16</td>
<td>221424P-16</td>
<td>Sportsman and Bracket Classes</td>
<td>.880</td>
<td>1.640</td>
<td>.860</td>
<td>250 @ 2.000</td>
<td>800 @ 1.150</td>
<td>647</td>
<td>1.070</td>
</tr>
<tr>
<td>221454-16</td>
<td>221454P-16</td>
<td>Sportsman and Bracket Classes</td>
<td>.850</td>
<td>1.650</td>
<td>.855</td>
<td>290 @ 2.000</td>
<td>825 @ 1.150</td>
<td>635</td>
<td>1.105</td>
</tr>
<tr>
<td>221425-16</td>
<td>221425P-16</td>
<td>Sportsman and Bracket Classes</td>
<td>.900</td>
<td>1.640</td>
<td>.860</td>
<td>280 @ 2.100</td>
<td>795 @ 1.250</td>
<td>604</td>
<td>1.150</td>
</tr>
<tr>
<td>221447-16*</td>
<td>221447P-16*</td>
<td>Sportsman and Bracket Classes</td>
<td>.800</td>
<td>1.677</td>
<td>.635</td>
<td>350 @ 2.000</td>
<td>895 @ 1.270</td>
<td>746</td>
<td>1.160</td>
</tr>
<tr>
<td>221448-16*</td>
<td>221448P-16*</td>
<td>Sportsman and Bracket Classes</td>
<td>.900</td>
<td>1.677</td>
<td>.635</td>
<td>350 @ 2.100</td>
<td>1010 @ 1.200</td>
<td>733</td>
<td>1.142</td>
</tr>
<tr>
<td>221449-16*</td>
<td>221449P-16*</td>
<td>Sportsman and Bracket Classes</td>
<td>1.000</td>
<td>1.677</td>
<td>.632</td>
<td>350 @ 2.200</td>
<td>1070 @ 1.200</td>
<td>720</td>
<td>1.142</td>
</tr>
<tr>
<td>221450-16*</td>
<td>221450P-16*</td>
<td>Sportsman and Bracket Classes</td>
<td>1.000</td>
<td>1.677</td>
<td>.632</td>
<td>370 @ 2.200</td>
<td>1140 @ 1.200</td>
<td>770</td>
<td>1.142</td>
</tr>
</tbody>
</table>

* Advertised pressures are achieved after springs have been pressed solid three times

See page 78-79 for comprehensive load charts
Ancillary Components
For Springs On Page 68

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Description</th>
<th>Spring Cups &amp; Locators</th>
<th>Type</th>
<th>Cup O.D.</th>
<th>Cup I.D.</th>
<th>Seat Cutter</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10° Standard Installed</td>
<td>42121-16</td>
<td>OD</td>
<td>1.740</td>
<td>.635</td>
<td>41851</td>
</tr>
<tr>
<td></td>
<td>10° (+.100)</td>
<td>42128-16*</td>
<td>OD</td>
<td>1.740</td>
<td>.635</td>
<td>41851</td>
</tr>
<tr>
<td></td>
<td>10° (+.100) Lightweight Super 7°</td>
<td>42379-16*</td>
<td>OD</td>
<td>1.740</td>
<td>.570</td>
<td>41859</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23685TM-16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>7° (+.100) Super 7°</td>
<td>42371-16</td>
<td>OD</td>
<td>1.740</td>
<td>.635</td>
<td>41851</td>
</tr>
<tr>
<td></td>
<td>10° Standard Installed</td>
<td>42372-16</td>
<td>OD</td>
<td>1.740</td>
<td>.570</td>
<td>41859</td>
</tr>
<tr>
<td></td>
<td>10° (+.100) Lightweight</td>
<td>42364-16</td>
<td>ID</td>
<td>1.660</td>
<td>.570</td>
<td>41858</td>
</tr>
</tbody>
</table>

Valve Spring & Titanium Retainer Kits

- Large savings over purchasing items separately

<table>
<thead>
<tr>
<th>Kit No.</th>
<th>Quantity</th>
<th>Application</th>
<th>NexTek® Spring No.</th>
<th>10° Titanium Retainer No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>261424</td>
<td>1 kit</td>
<td>Super Gas, Super Comp., Big Block Bracket Engines</td>
<td>221424-16</td>
<td>23640-16</td>
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<td>261424L</td>
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<td>Same, except lightweight titanium retainers</td>
<td>221424-16</td>
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<tr>
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<td>1 kit</td>
<td>Super Gas, Super Comp., Big Block Bracket Engines</td>
<td>221454-16</td>
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<td>261454L</td>
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<tr>
<td>261425</td>
<td>1 kit</td>
<td>Super Gas, Super Comp., Big Block Bracket Engines</td>
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<td>261425L</td>
<td>1 kit</td>
<td>Same, except lightweight titanium retainers</td>
<td>221425-16</td>
<td>23540-16</td>
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NexTek® Series
Drag Race, Oval Track & Endurance Valve Springs

- No degradation of spring pressure in the later stages of a race
- Specially processed premium-grade chrome silicon that is virtually free of impurities or surface irregularities
- NexTek® Series valve springs have been tested by leading engine builders and are confirmed to be the best performing valve springs on the market today

<table>
<thead>
<tr>
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<td>221432-16</td>
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<td>-</td>
<td>Late Model Stock w/ Flat Tappet</td>
<td>.630</td>
<td>1.530</td>
<td>.750</td>
<td>150 @ 1.900 425 @ 1.270</td>
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<td>1.170</td>
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<td>1.570</td>
<td>.760</td>
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<td>1.570</td>
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<td>221442-16</td>
<td>Solid Roller</td>
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<td>235 @ 1.950 610 @ 1.250</td>
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<td>1.620</td>
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<td>1.200</td>
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<td>221446SF-16</td>
<td>Solid Roller</td>
<td>.800</td>
<td>1.400</td>
<td>.700</td>
<td>240 @ 2.050 700 @ 1.250</td>
<td>575</td>
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<td>221452SF-16</td>
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<td>.800</td>
<td>250 @ 2.025 750 @ 1.200</td>
<td>618</td>
<td>1.150</td>
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See page 78-79 for comprehensive load charts

See page 88 for available Valve Spring Shims
## Ancillary Components
### For Springs On Page 70

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Super 7° &amp; 10° Lightweight Titanium Retainers</th>
<th>Super 7° Lightweight Titanium Retainers</th>
<th>Super 7° Lightweight TensileMax Retainers</th>
<th>H-13 Tool Steel Retainers</th>
<th>Spring Cups &amp; Locators</th>
<th>Type</th>
<th>Cup O.D.</th>
<th>Cup I.D.</th>
<th>Cup I.D. Thickness</th>
<th>Seat Cutter</th>
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<tbody>
<tr>
<td>A</td>
<td>23672-16 (Super 7°), 23644-16 (10° Ti Std.), 23650-16 (10° Ti +.100)</td>
<td>23650TS-16 (10° +.100)</td>
<td>42330-16 (10° +.100)</td>
<td>42426-16* ID 1.535 .635 .062</td>
<td>41835</td>
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<td>23705L-16, 23705LI-16</td>
<td>23705LTM-16 (10° +.100)</td>
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<td>23672-16 (Super 7°), 236721-16 (Super 7°), 23647-16 (10° Ti +.100)</td>
<td>23672TM-16, 23672TS-16 (Super 7°)</td>
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<td>23682TM-16, 23682TS-16 (Super 7°)</td>
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<td>23681-16 (Super 7°), 23681L-16 (10° Ti Std.), 23648-16 (10° Ti +.100)</td>
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<td>23691LI-16 (Super 7°)</td>
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<td>23685-16 (Super 7°), 23685LI-16 (10° Ti Std.), 23685LI-16 (10° Ti +.100)</td>
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<td>42342-16 ID 1.610 .570 .062</td>
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<td>23746L-16</td>
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<td>23702L-16</td>
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</table>

**Suffix Code:**
- **I**: Impinged
- **L**: Lightweight
- **LI**: Lightweight and Impinged
- **LTM**: Lightweight TensileMax
- **TM**: TensileMax
- **TS**: Tool Steel

* Pro Series Locators
# NexTek® Series

**High Performance Valve Springs**

- Chevy LS/LT1/LT4

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
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</thead>
<tbody>
<tr>
<td>221428-16</td>
<td>SBC LS-Series, LT1 / &amp; Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller</td>
<td>.600</td>
<td>1.076 Top</td>
<td>.650 Top</td>
<td>150 @ 1.800</td>
<td>341</td>
<td>1.085</td>
<td>79</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>.855 Bottom</td>
<td>.855 Bottom</td>
<td>355 @ 1.200</td>
<td></td>
<td></td>
<td>A</td>
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</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221438-16</td>
<td>SBC LS-Series, LT1, LT4 &amp; Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller</td>
<td>.650</td>
<td>1.076 Top</td>
<td>.650 Top</td>
<td>150 @ 1.800</td>
<td>353</td>
<td>1.100</td>
<td>73</td>
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<td></td>
<td></td>
<td></td>
<td>.855 Bottom</td>
<td>.855 Bottom</td>
<td>380 @ 1.150</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
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</thead>
<tbody>
<tr>
<td>221436-16</td>
<td>SBC LS-Series, LT1, LT4 &amp; Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller</td>
<td>.660</td>
<td>1.295</td>
<td>.676</td>
<td>155 @ 1.810</td>
<td>379</td>
<td>1.100</td>
<td>93</td>
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<td></td>
<td></td>
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<td>.885 Bottom</td>
<td>.885 Bottom</td>
<td>405 @ 1.150</td>
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<th>Part No.</th>
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<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221435-16</td>
<td>SBC LS-Series, LT1, LT4 &amp; Early Model LT-1 / LT-4 / L-98 High Performance Hydraulic Roller</td>
<td>.700</td>
<td>1.340</td>
<td>.726</td>
<td>170 @ 1.810</td>
<td>394</td>
<td>1.050</td>
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<td></td>
<td>.945 Bottom</td>
<td>.945 Bottom</td>
<td>450 @ 1.110</td>
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<table>
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<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221421-16</td>
<td>SBC LS-Series, LT1 High Performance Hydraulic Roller</td>
<td>.800</td>
<td>1.324</td>
<td>.676</td>
<td>165 @ 1.800</td>
<td>435</td>
<td>.900</td>
<td>90</td>
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<td>.885 Bottom</td>
<td>.885 Bottom</td>
<td>515 @ 1.000</td>
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<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Pressure</th>
<th>Rate (lbs. / in.)</th>
<th>Coll Bind (grams)</th>
<th>Weight Component Code</th>
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<tbody>
<tr>
<td>221422-16</td>
<td>SBC LS-Series, LT1 High Performance Solid Roller</td>
<td>.780</td>
<td>1.335</td>
<td>.622</td>
<td>270 @ 1.800</td>
<td>780</td>
<td>.960</td>
<td>109</td>
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<td></td>
<td>.870 Bottom</td>
<td>.870 Bottom</td>
<td>870 @ 1.020</td>
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See page 80 for comprehensive load charts

### LS/LT1/LT4 Valve Spring Kits

- Large savings over purchasing items separately

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<td>26382038KS</td>
<td>LS / .600&quot;</td>
<td>221438-16</td>
<td>23620-16</td>
<td>42338-16</td>
<td>13098-16</td>
<td>24042-16</td>
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<td>26362134KS</td>
<td>LS / .660&quot;</td>
<td>221436-16</td>
<td>23621-16</td>
<td>42334-16</td>
<td>13098-16</td>
<td>24042-16</td>
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<td>26361734KLS</td>
<td>LS / .560&quot; - LT1 / .660&quot;</td>
<td>221436-16</td>
<td>23623-16</td>
<td>42334-16</td>
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<td>24042-16</td>
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<tr>
<td>26361734KLS</td>
<td>LT4 / .660&quot;</td>
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<tr>
<td>26351148KS</td>
<td>LS / .700&quot;</td>
<td>221435-16</td>
<td>23610-16</td>
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<tr>
<td>26361734KLS</td>
<td>LT4 / .700&quot;</td>
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<td>23610-16</td>
<td>42438-16</td>
<td>13098-16</td>
<td>24042-16</td>
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<td>23606TS-16</td>
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<td>13153-16</td>
<td>24042-16</td>
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Note: Max. lift figures above may vary depending upon the cylinder head and installed height.

Note: New part numbers are **BOLD & ITALICIZED**
Ancillary Components For Springs On Page 72

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Retainer Part No.</th>
<th>Description</th>
<th>I.D. Locator Part No.</th>
<th>Int./Exh.</th>
<th>O.D.</th>
<th>Cup I.D.</th>
<th>Cup Thickness</th>
<th>Seat Cutter</th>
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<tbody>
<tr>
<td>A</td>
<td>23620-16</td>
<td>7° Steel for Manley 13098 or factory LS valve lock and factory spring seat</td>
<td>42338-16</td>
<td>Int./Exh.</td>
<td>1.290</td>
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<td>.035</td>
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<td>42148-8</td>
<td>Int. (LT4)</td>
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<td>.520</td>
<td>.035</td>
<td>None</td>
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<td></td>
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<td>42336-16</td>
<td>Int./Exh.</td>
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<td>.505</td>
<td>.062</td>
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<td>42349-16</td>
<td>Int./Exh.</td>
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<td>.570</td>
<td>.062</td>
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<td>42161-8</td>
<td>Exh. (LT4)</td>
<td>1.290</td>
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<td>.190</td>
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<td>B</td>
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<td>7° Steel + .050 for Manley 13098 or factory LS valve lock</td>
<td>42334-16</td>
<td>Int./Exh.</td>
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<td>Int. (LT4)</td>
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<td>.035</td>
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<td>42124-16</td>
<td>Int./Exh.</td>
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<td>42138-16</td>
<td>Int./Exh.</td>
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<td>.505</td>
<td>.062</td>
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<td>42165-8</td>
<td>Exh. (LT4)</td>
<td>1.270</td>
<td>.520</td>
<td>.150</td>
<td>None</td>
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<tr>
<td>C</td>
<td>23610-16</td>
<td>7° Steel + .050 for Manley 13098 or factory LS valve lock</td>
<td>42334-16</td>
<td>Int./Exh.</td>
<td>1.320</td>
<td>.505</td>
<td>.035</td>
<td>None</td>
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<tr>
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<td></td>
<td>42162-8</td>
<td>Int. (LT4)</td>
<td>1.320</td>
<td>.520</td>
<td>.035</td>
<td>None</td>
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<td>42124-16</td>
<td>Int./Exh.</td>
<td>1.320</td>
<td>.570</td>
<td>.035</td>
<td>None</td>
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<td></td>
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<td></td>
<td>42135-16</td>
<td>Int./Exh.</td>
<td>1.320</td>
<td>.567</td>
<td>.035</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>42169-8</td>
<td>Exh. (LT4)</td>
<td>1.320</td>
<td>.520</td>
<td>.150</td>
<td>None</td>
</tr>
<tr>
<td>D</td>
<td>23618-16</td>
<td>7° Titanium + .050 for Manley 13098 or factory LS valve lock</td>
<td>42117-16</td>
<td>Int./Exh.</td>
<td>1.300</td>
<td>.505</td>
<td>.035</td>
<td>None</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>42130-16</td>
<td>Int./Exh.</td>
<td>1.300</td>
<td>.567</td>
<td>.035</td>
<td>None</td>
</tr>
<tr>
<td>E</td>
<td>23619-16</td>
<td>10° Titanium + .050 for Manley 13153 valve lock</td>
<td>42129-16</td>
<td>Int./Exh.</td>
<td>1.310</td>
<td>.505</td>
<td>.035</td>
<td>None</td>
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<tr>
<td></td>
<td>23619TS-16</td>
<td>10° H-13 Tool Steel +.050” for Manley 13153 valve lock</td>
<td>42131-16</td>
<td>Int./Exh.</td>
<td>1.310</td>
<td>.567</td>
<td>.035</td>
<td>None</td>
</tr>
</tbody>
</table>

Manley manufactures standard and +.050” retainers as well as standard, +.050” and -.050” valve locks enabling engine builders to achieve proper installed heights for the Manley NexTek® Springs above depending upon the chosen LS, LT1 or LT4 cylinder head. If required, spring shims may also need to be utilized to achieve the proper installed height.

Factory OEM Installed Heights

<table>
<thead>
<tr>
<th>Application</th>
<th>Installed Hgt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-1</td>
<td>1.750”</td>
</tr>
<tr>
<td>LS-3</td>
<td>1.800”</td>
</tr>
<tr>
<td>LT1</td>
<td>1.870”</td>
</tr>
<tr>
<td>LT4 Int.</td>
<td>1.810”</td>
</tr>
<tr>
<td>LT4 Exh.</td>
<td>1.870”</td>
</tr>
</tbody>
</table>

LS/LT1/LT4 7° Valve Locks for 8mm Stem Valves

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13094-16</td>
<td>.050” less installed hgt.</td>
</tr>
<tr>
<td>13095-16</td>
<td>.050” more installed hgt.</td>
</tr>
<tr>
<td>13098-16</td>
<td>Standard installed hgt.</td>
</tr>
</tbody>
</table>

Note: New part numbers are BOLD & ITALICIZED
NexTek® Series
High Performance Valve Springs
• Chrysler Hemi

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Rate Pressure (lbs. / in.)</th>
<th>Rate (lbs.)</th>
<th>Coil Bind (grams)</th>
<th>Weight (grams)</th>
<th>Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221431-16*</td>
<td>Chrysler Hemi 5.7L, 6.1L</td>
<td>0.650</td>
<td>1.076 Top</td>
<td>1.311 Bottom</td>
<td>145 @ 1.811</td>
<td>353</td>
<td>1.100</td>
<td>72</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>High Performance Hydraulic Roller</td>
<td></td>
<td>0.650 Top</td>
<td>0.885 Bottom</td>
<td>370 @ 1.161</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Super Finished Single Conical Ovate Wire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221439-16</td>
<td>Chrysler Hemi 6.4L</td>
<td>0.650</td>
<td>1.076 Top</td>
<td>1.311 Bottom</td>
<td>145 @ 1.811</td>
<td>353</td>
<td>1.100</td>
<td>72</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>High Performance Hydraulic Roller</td>
<td></td>
<td>0.650 Top</td>
<td>0.885 Bottom</td>
<td>380 @ 1.150</td>
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<td></td>
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<td>Super Finished Single Conical Ovate Wire</td>
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</table>

* These Chrysler Hemi springs come with shims which are ONLY needed for 6.1L applications on the intake side in order to achieve the correct installed height. Each set also includes a set of piloting rings that install over the factory “Top Hat” integral valve seal to properly locate the ID of the spring on early 5.7L (thru 2008) and 6.1L applications. P/N 221431X-16 which does not include any shims or piloting rings is also available for the Hemi Drag Pak engines.

NexTek® Series
High Performance Valve Springs
• Ford Modular/Coyote

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Maximum Valve Lift</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Installed / Open Rate Pressure (lbs. / in.)</th>
<th>Rate (lbs.)</th>
<th>Coil Bind (grams)</th>
<th>Weight (grams)</th>
<th>Component Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>221427-16</td>
<td>Ford 4.6L, 5.4L SOHC 2 Valves per Cylinder</td>
<td>0.580</td>
<td>1.020 Top</td>
<td>1.125 Bottom</td>
<td>95 @ 1.680</td>
<td>264</td>
<td>1.080</td>
<td>52</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Stock Diameter Hydraulic Roller</td>
<td></td>
<td>0.642 Top</td>
<td>0.748 Bottom</td>
<td>240 @ 1.130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221437-16</td>
<td>Ford 4.6L, 5.4L SOHC 2 Valves per Cylinder</td>
<td>0.580</td>
<td>1.030 Top</td>
<td>1.175 Bottom</td>
<td>125 @ 1.680</td>
<td>255</td>
<td>1.080</td>
<td>56</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Stock Diameter</td>
<td></td>
<td>0.642 Top</td>
<td>0.787 Bottom</td>
<td>265 @ 1.130</td>
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</tr>
<tr>
<td></td>
<td>Ideal for Boosted Applications</td>
<td></td>
<td></td>
<td></td>
<td>Super Finished Single Conical Ovate Wire</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>221433-24</td>
<td>Ford 4.6L, 5.4L 3 Valve 3 Valves per Cylinder</td>
<td>0.580</td>
<td>1.013 Top</td>
<td>1.101 Bottom</td>
<td>110 @ 1.670</td>
<td>258</td>
<td>1.020</td>
<td>49</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>High Performance Hydraulic Roller</td>
<td></td>
<td>0.650 Top</td>
<td>0.738 Bottom</td>
<td>260 @ 1.090</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221434-32</td>
<td>Ford 4.6L, 5.4L DOHC 4 Valves per Cylinder</td>
<td>0.525</td>
<td>1.016 Top</td>
<td>1.126 Bottom</td>
<td>95 @ 1.420</td>
<td>330</td>
<td>.860</td>
<td>45</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>Stock Diameter</td>
<td></td>
<td>0.640 Top</td>
<td>0.750 Bottom</td>
<td>270 @ 0.895</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Super Finished Single Conical Ovate Wire</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221418-32</td>
<td>Ford 5.0L DOHC Coyote Gen I/II 4 Valves per Cylinder</td>
<td>0.570</td>
<td>0.841 Top</td>
<td>1.014 Bottom</td>
<td>90 @ 1.570</td>
<td>236</td>
<td>.904</td>
<td>36</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>Stock Diameter Hydraulic Roller</td>
<td></td>
<td>0.533 Top</td>
<td>0.706 Bottom</td>
<td>225 @ 1.000</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Ideal for Boosted Applications</td>
<td></td>
<td></td>
<td></td>
<td>Super Finished Single Conical Ovate Wire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221419-32</td>
<td>Ford 5.0L DOHC Coyote Gen I/II 4 Valves per Cylinder</td>
<td>0.600</td>
<td>1.013 Top</td>
<td>1.101 Bottom</td>
<td>120 @ 1.640</td>
<td>258</td>
<td>.970</td>
<td>49</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>High Performance Hydraulic Roller</td>
<td></td>
<td>0.650 Top</td>
<td>0.738 Bottom</td>
<td>275 @ 1.040</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

See page 80 for comprehensive load charts
See page 88 for available Valve Spring Shims
### Ancillary Components For Springs On Page 74

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Retainer Part No.</th>
<th>Description</th>
<th>Spring Cup Part No.</th>
<th>Type</th>
<th>Cup O.D.</th>
<th>Cup I.D.</th>
<th>Cup Thickness</th>
<th>Seat Cutter</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>23612-16</td>
<td>7° Steel for Manley 13093 or factory valve lock</td>
<td></td>
<td>ID</td>
<td>1.300</td>
<td>.812</td>
<td>.205</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>23613-16</td>
<td>7° Titanium for Manley 13093 or factory valve lock</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Must use ID locator P/N 42324-16 for the 2009 and up Hemi 5.7L and all 6.4L</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

| B              | 23627-16          | 7° Titanium for Manley 13089 or factory valve lock | 42324-16 | ID   | 1.300    | .812     | .205          | None       |
|                | 23667-16          | 7° Titanium + .060 for Manley 13089 or factory valve lock |         |      |          |          |               |            |
|                |                   | 7° Titanium for Manley 13088 or factory valve lock |         |      |          |          |               |            |
| C              | 23614-24          | 7° Titanium for Manley 13088 or factory valve lock |                     | ID   | 1.080    | .440     | .045          | None       |
|                |                   | 7° Titanium + .070 for Manley 13086 or factory valve lock |                 |      |          |          |               |            |
| D              | 23605-32          | 7° Titanium + .070 for Manley 13086 or factory valve lock | 42153-32 | ID   | 1.080    | .440     | .045          | None       |
|                | 23605TS-32        | 7° H-13 Tool Steel +.070 for Manley 13086 or factory valve lock |                 |      |          |          |               |            |
|                |                   | 7° Steel for Manley 13086 or factory valve lock and factory spring seat |                 |      |          |          |               |            |

**Addiction Motorsports**
### Street Master Valve Springs

- Chrome silicon material
- Designed for low stress and long service life

#### Professional Valve Springs

- Chrome silicon material for oval track and drag racing

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Type</th>
<th>Application</th>
<th>Size</th>
<th>OD/ID</th>
<th>Pressures</th>
<th>Rate (lbs./in.)</th>
<th>Weight (grams)</th>
<th>Super 7° Retainer</th>
<th>10° Steel Retainer</th>
<th>Titanium Retainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>22409-16</td>
<td>Outer w/</td>
<td>SB Chevy</td>
<td>1.250”</td>
<td>.865”</td>
<td>110 @ 1.700”</td>
<td>87</td>
<td>23651-16 (St.)</td>
<td>23652-16 (+.050”)</td>
<td>23642-16 (7° x 11/32” +.050”)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>damper</td>
<td>Street Use</td>
<td></td>
<td></td>
<td>285 @ 2.120”</td>
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<td></td>
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<td></td>
<td></td>
<td>Coll Bind: 1.180”</td>
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</tr>
<tr>
<td>22408-16</td>
<td>Double w/</td>
<td>SB Chevy</td>
<td>1.437”</td>
<td>.720”</td>
<td>115 @ 1.800”</td>
<td>392</td>
<td>23645-16 (11/32”)</td>
<td>23656-16 (+.060”)</td>
<td>23630-16 (10 Degree)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>damper</td>
<td>LS-1 Chevy, Ford, Chrysler</td>
<td></td>
<td></td>
<td>330 @ 2.520”</td>
<td></td>
<td></td>
<td></td>
<td>23638-16 (7° x 5/16” LS-1)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>350 @ 2.200”</td>
<td></td>
<td></td>
<td></td>
<td>23639-16</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Coll Bind: 1.100”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22407-16</td>
<td>Double w/</td>
<td>SB &amp; BB Chevy</td>
<td>1.437”</td>
<td>.720”</td>
<td>135 @ 1.800”</td>
<td>418</td>
<td>23645-16 (11/32”)</td>
<td>23656-16 (+.060”)</td>
<td>23630-16 (10 Degree)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>damper</td>
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<td>365 @ 2.520”</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>385 @ 2.200”</td>
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<td>Coll Bind: 1.085”</td>
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</tr>
<tr>
<td>22406-16</td>
<td>Outer w/</td>
<td>BB Chevy</td>
<td>1.550”</td>
<td>1.080”</td>
<td>125 @ 1.875”</td>
<td>460</td>
<td>23645-16 (11/32”)</td>
<td>23656-16 (+.060”)</td>
<td>23630-16 (10 Degree)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>damper</td>
<td></td>
<td></td>
<td></td>
<td>355 @ 1.375”</td>
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<td>Coll Bind: 1.190”</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

See page 88 for available Valve Spring Shims
### Street Master / Professional Series
#### Street/Strip, Oval Track & Drag Race Valve Springs

**Load Chart**

<table>
<thead>
<tr>
<th>P/N Type of Spring</th>
<th>22406</th>
<th>22407</th>
<th>22408</th>
<th>22409</th>
<th>22410</th>
<th>22411</th>
<th>22412</th>
<th>22413</th>
<th>22414</th>
<th>22415</th>
<th>22416</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Ht.</td>
<td>1.875</td>
<td>1.800</td>
<td>1.800</td>
<td>1.700</td>
<td>1.750</td>
<td>1.750</td>
<td>1.880</td>
<td>1.900</td>
<td>1.950</td>
<td>1.850</td>
<td>1.900</td>
</tr>
<tr>
<td>Inst. Pressure</td>
<td>125</td>
<td>135</td>
<td>115</td>
<td>110</td>
<td>130</td>
<td>115</td>
<td>150</td>
<td>210</td>
<td>225</td>
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<tr>
<td>Open Pressure</td>
<td>355</td>
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<td>350</td>
<td>285</td>
<td>335</td>
<td>390</td>
<td>425</td>
<td>525</td>
<td>580</td>
<td>680</td>
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<td>370</td>
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<td>458</td>
<td>484</td>
<td>507</td>
<td>614</td>
<td>471</td>
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<td>I.D. of Outer</td>
<td>1.080</td>
<td>1.060</td>
<td>1.060</td>
<td>0.865</td>
<td>0.876</td>
<td>0.870</td>
<td>1.130</td>
<td>1.130</td>
<td>1.115</td>
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<td>I.D. of Inner</td>
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<td>0.720</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0.740</td>
<td>0.735</td>
<td>0.725</td>
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<tr>
<td>Coil Bind Ht.</td>
<td>1.190</td>
<td>1.085</td>
<td>1.100</td>
<td>1.180</td>
<td>1.095</td>
<td>1.100</td>
<td>1.180</td>
<td>1.200</td>
<td>1.190</td>
<td>1.090</td>
<td>1.100</td>
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<td>Inches</td>
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</tr>
<tr>
<td>S 2.500</td>
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**LOAD (LBS.)**
## NexTek® Series

**Drag Race, Oval Track & Endurance Valve Springs**

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### Dimensions

|  | 2.350 | 2.300 | 2.250 | 2.200 | 2.150 | 2.100 | 2.050 | 2.000 | 1.950 | 1.900 | 1.850 | 1.800 | 1.750 | 1.700 | 1.650 | 1.600 | 1.550 | 1.500 | 1.450 | 1.400 | 1.350 | 1.300 | 1.250 | 1.200 | 1.150 | 1.100 |
| S | 41 | 80 | 119 | 120 | 158 | 153 | 185 | 280 | 134 | 353 | 392 | 431 | 470 | 509 | 548 | 587 | 626 | 665 | 704 | 743 | 782 | 821 | 860 | 899 | 940 | 977 | 800 |
| P | 189 | 189 | 121 | 122 | 150 | 153 | 175 | 280 | 250 | 280 | 315 | 347 | 379 | 412 | 444 | 476 | 509 | 541 | 574 | 606 | 638 | 671 | 703 | 735 | 768 | 824 | 832 |

### Load (LBS.)

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### Notes
- **Bold** loads correspond to installed and open pressures.
# NexTek® Series

**Drag Race, Oval Track & Endurance Valve Springs**

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Note: **BOLD** loads correspond to installed and open pressures.
# NexTek® Series

**High Performance Valve Springs**

- Chevy LS/LT1
- Late Model Chrysler Hemi
- Ford Modular
- Ford Coyote

## Load Chart

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<th>P/N</th>
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<td>267</td>
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Manley Retainers

....simply the best!

- Engineered using finite element analysis
  - Specially heat treated titanium material
- Exclusive “impingement” finishing process
  - TensileMax steel and H-13 tool steel alloys
- CNC machined to exacting tolerances
  and jewel-like surface finishes

7° & 10° Titanium

Lightweight Titanium

TensileMax Steel

H-13 Tool Steel
## 7° Titanium Retainers

- Special 6AL-4V titanium for maximum strength
- CAD designed for ultimate reduction in mass without sacrificing strength
- Must use 7° valve locks

### Spring Dimensions

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<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring</th>
<th>Height</th>
<th>O.D.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Degree</th>
<th>Stem</th>
<th>Wgt/Grams</th>
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<td>.627&quot;</td>
<td>.465&quot;</td>
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<td>.570&quot;</td>
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* Made from our high strength Ti-17 Titanium Material

P/N's 23601, 23602, 23603, 23611, 23617, 23618, 23622, 23623, 23625, 23638, and 23639 must use Manley P/N 13098 or factory Chevrolet LS valve locks

P/N’s 23624, 23626, and 23642 are for the following engine models: LT-1 / LT-4 / L-98 and must use Manley P/N 13091
Super 7° Titanium Retainers

- Super 7° angle is actually 8°
- Heat treated titanium material for maximum strength
- Available with or without our exclusive impingement surface enhancement process
- Impingement results in a 20% improvement in resistance to abrasion, a 30% improvement in fatigue strength, and an overall improvement in surface finish
- "L" Suffix indicates Lightweight version which is 3-4 grams lighter than standard part number

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<th>Part No. w/ Impinge</th>
<th>Quantity</th>
<th>Spring Type</th>
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<th>Dimensions</th>
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<td>1.175&quot;</td>
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<td>23681LL-16</td>
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<td>Manley 221443, 221444</td>
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<td>1.500&quot;</td>
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<td>1.450&quot;</td>
<td>1.185&quot;</td>
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</tbody>
</table>

Please call with your custom retainer requirements
# Lightweight 10° Titanium Retainers

- Squeeze more RPM's out of your engine
- Avoid valve float
- Lightweight retainer does not sacrifice reliability
- 16 grams - compared to normal 19 to 21 grams
- Special heat treated titanium for maximum strength
- Must use 10° valve locks

**BULK PRICING AVAILABLE**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring Type</th>
<th>Spring</th>
<th>Height</th>
<th>Spring O.D.</th>
<th>Dimensions</th>
<th>Wgt/Grans</th>
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<td>1.430” 1.185” .860” .620”</td>
<td>17</td>
</tr>
</tbody>
</table>

* Made from our high strength Ti-17 Titanium Material

---

**ATI Racings J.C. Beattie Jr.**
# 10° Titanium Retainers

- Special 6AL-4V titanium for maximum strength
- Excellent value for all forms of racing

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring Type</th>
<th>Spring</th>
<th>Height</th>
<th>Spring O.D.</th>
<th>Dimensions</th>
<th>Wgt/Grams</th>
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<td>C</td>
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<td>1.500”</td>
<td>1.185”</td>
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</table>
## TensileMax Steel Retainers

These are serious retainers for serious engine builders who **DEMAND THE VERY BEST**...  
- Manufactured from our incredibly tough TensileMax alloy  
- Designed to be as light as standard titanium retainers and very close in weight to lightweight titanium versions (within 2-4 grams)  
- Specially heat treated to provide a hardness of Rc 52-54 and prevent retainer wear  
- Exclusive process yields a part that provides the optimum balance between ultimate strength, fatigue strength, hardness and ductility  
- Unique impingement process developed specifically for our TensileMax alloy and hardness range to improve fatigue strength and promote better oiling between the spring and retainer

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring Type</th>
<th>Spring</th>
<th>Spring O.D.</th>
<th>Keeper Degree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Wgt/ Grams</th>
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<td>16 pcs.</td>
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<td>1.035&quot;</td>
<td>.705&quot;</td>
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<td>10° (.100&quot;)</td>
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<td>1.035&quot;</td>
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<td>1.105&quot;</td>
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<td>Manley 221452SF</td>
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</table>

### CNC Retainer Machining
For those searching for a slightly more economical alternative to titanium retainers, either to help solve a “wear problem” or because of “class rules,” Manley lightweight H-13 Tool Steel retainers are your solution! H-13 tool steel allows for better processing than “other” tool steels typically utilized; thus yielding a stronger, more durable product.

- Up to 33% lighter than standard 10° steel retainers
- Only 2-4 grams heavier than titanium versions
- Heat treated to provide a hardness of Rc 56

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring Type</th>
<th>Spring</th>
<th>Spring O.D.</th>
<th>Keeper Degree</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Wgt/ Grams</th>
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<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221452SF</td>
<td>1.550”</td>
<td>Super 7°</td>
<td>1.440”</td>
<td>1.120”</td>
<td>.790”</td>
<td>23</td>
</tr>
<tr>
<td>23643TS-16</td>
<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221442</td>
<td>1.560”</td>
<td>10° (+.100”)</td>
<td>1.440”</td>
<td>1.120”</td>
<td>.805”</td>
<td>23</td>
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<td>23682TS-16</td>
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<td>Double</td>
<td>Manley 221442</td>
<td>1.560”</td>
<td>Super 7°</td>
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<td>1.120”</td>
<td>.805”</td>
<td>23</td>
</tr>
<tr>
<td>23647TS-16</td>
<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221441P, 22429, 22430</td>
<td>1.570”</td>
<td>10° (+.100”)</td>
<td>1.440”</td>
<td>1.120”</td>
<td>.730”</td>
<td>22</td>
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<tr>
<td>23672TS-16</td>
<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221441P, 22429, 22430</td>
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<td>Super 7°</td>
<td>1.440”</td>
<td>1.125”</td>
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<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221443, 221444</td>
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<td>10° (+.100”)</td>
<td>1.440”</td>
<td>1.150”</td>
<td>.825”</td>
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<tr>
<td>23681TS-16</td>
<td>16 pcs.</td>
<td>Double</td>
<td>Manley 221443, 221444</td>
<td>1.580”/1.610”</td>
<td>Super 7°</td>
<td>1.440”</td>
<td>1.150”</td>
<td>.825”</td>
<td>24</td>
</tr>
</tbody>
</table>

Call your Manley salesman to inquire about custom H-13 tool steel retainers

Note: New part numbers are **BOLD & ITALICIZED**
Street Master Steel Valve Spring Retainers

- CNC machined to exacting tolerances
- Thru-hardened 4140 chrome moly

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Spring</th>
<th>Spring Height</th>
<th>Spring O.D.</th>
<th>Keeper Degree</th>
<th>Valve Stem</th>
<th>A</th>
<th>Dimensions</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Wgt/Grms</th>
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</thead>
<tbody>
<tr>
<td>23604-32</td>
<td>32 pcs.</td>
<td>221418</td>
<td>Std.</td>
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<td>.795&quot;</td>
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<tr>
<td>23612-16</td>
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<td>221431, 221439</td>
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<td>7° x 5/16&quot;</td>
<td>.935&quot;</td>
<td>.640&quot;</td>
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<tr>
<td>23620-16</td>
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<td>221428, 221438</td>
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<td>7° x 8mm</td>
<td>.935&quot;</td>
<td>.640&quot;</td>
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<tr>
<td>23651-16</td>
<td>16 pcs.</td>
<td>22409, 22410, 22411</td>
<td>Std.</td>
<td>1.250&quot;</td>
<td>7° x 11/32&quot;</td>
<td>1.245&quot;</td>
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<td>.680&quot;</td>
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<tr>
<td>23652-16</td>
<td>16 pcs.</td>
<td>22409, 22410, 22411</td>
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<td>1.250&quot;</td>
<td>7° x 11/32&quot;</td>
<td>1.245&quot;</td>
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<td>.680&quot;</td>
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<tr>
<td>23621-16</td>
<td>16 pcs.</td>
<td>221436</td>
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<td>7° x 8mm</td>
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<td>23610-16</td>
<td>16 pcs.</td>
<td>221435</td>
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<td>1.340&quot;</td>
<td>7° x 8mm</td>
<td>1.200&quot;</td>
<td>.985&quot;</td>
<td>.715&quot;</td>
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<tr>
<td>23645-16</td>
<td>16 pcs.</td>
<td>22406, 22407, 22408</td>
<td>Std.</td>
<td>1.437&quot;/1.550&quot;</td>
<td>7° x 11/32&quot;</td>
<td>1.440&quot;</td>
<td>1.050&quot;</td>
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<tr>
<td>23635-16</td>
<td>16 pcs.</td>
<td>22406, 22407, 22408</td>
<td>+.060&quot;</td>
<td>1.437&quot;/1.550&quot;</td>
<td>7° x 11/32&quot;</td>
<td>1.440&quot;</td>
<td>1.050&quot;</td>
<td>.700&quot;</td>
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<td>---</td>
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<tr>
<td>23666-16</td>
<td>16 pcs.</td>
<td>22406, 22407, 22408</td>
<td>Std.</td>
<td>1.437&quot;/1.550&quot;</td>
<td>7° x 3/8&quot;</td>
<td>1.440&quot;</td>
<td>1.050&quot;</td>
<td>.700&quot;</td>
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<tr>
<td>23646-16</td>
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<td>22406, 22407, 22408</td>
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<td>7° x 11/32&quot;</td>
<td>1.440&quot;</td>
<td>1.050&quot;</td>
<td>.700&quot;</td>
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<tr>
<td>23636-16</td>
<td>16 pcs.</td>
<td>Crane 99882</td>
<td>Std.</td>
<td>1.550&quot;</td>
<td>10° x All</td>
<td>1.500&quot;</td>
<td>1.130&quot;</td>
<td>.735&quot;</td>
<td>.640&quot;</td>
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<tr>
<td>23659-16</td>
<td>16 pcs.</td>
<td>Manley 22431, 22440, 22441</td>
<td>+.100&quot;</td>
<td>1.550&quot;</td>
<td>10° x All</td>
<td>1.500&quot;</td>
<td>1.105&quot;</td>
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</tr>
<tr>
<td>23656-16</td>
<td>16 pcs.</td>
<td>Manley 22429, 22430</td>
<td>+.100&quot;</td>
<td>1.550&quot;</td>
<td>10° x All</td>
<td>1.500&quot;</td>
<td>1.120&quot;</td>
<td>.705&quot;</td>
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</tr>
</tbody>
</table>

P/N 23610, 23620 and 23621 must use Manley 13098 or factory Chevrolet LS valve locks

Valve Spring Shims

- Available in .060", .030" and .015" thickness
- Heat treated to resist wear

<table>
<thead>
<tr>
<th>.060&quot;</th>
<th>Part Numbers</th>
<th>.030&quot;</th>
<th>.015&quot;</th>
<th>Quantity</th>
<th>O.D.</th>
<th>I.D.</th>
<th>Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>02236-50</td>
<td>02233-50</td>
<td>02231-50</td>
<td>50 pcs.</td>
<td>1.250&quot;</td>
<td>.812&quot;</td>
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<td>SB Chevy-stock size springs</td>
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<tr>
<td>02336-50</td>
<td>02333-50</td>
<td>02331-50</td>
<td>50 pcs.</td>
<td>1.480&quot;</td>
<td>.703&quot;</td>
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<td>BB Chevrolet</td>
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<tr>
<td>03266-50</td>
<td>03263-50</td>
<td>03261-50</td>
<td>50 pcs.</td>
<td>1.437&quot;</td>
<td>.785&quot;</td>
<td>Hard</td>
<td>SB Chevrolet w/ larger springs</td>
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<tr>
<td>03276-50</td>
<td>03273-50</td>
<td>03271-50</td>
<td>50 pcs.</td>
<td>1.625&quot;</td>
<td>.645&quot;</td>
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<td>Chevrolet - Chrysler</td>
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<tr>
<td>03266-50</td>
<td>03263-50</td>
<td>03261-50</td>
<td>50 pcs.</td>
<td>1.437&quot;</td>
<td>.785&quot;</td>
<td>Hard</td>
<td>Chevrolet - Chrysler -Ford</td>
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</table>
# O.D. Valve Spring Cups

- CNC machined
- Accurate and durable .062” thick
- Heat treated and black oxide finished

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Fits Spring O.D.</th>
<th>Cup O.D.</th>
<th>Cup I.D.</th>
<th>Wall Shoulder Height</th>
<th>Manley Spring</th>
<th>Use Cutter Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>42142-16</td>
<td>16 pcs.</td>
<td>1.250”</td>
<td>1.390”</td>
<td>.570”</td>
<td>.150”</td>
<td>22409, 22410, 22411</td>
<td>41850</td>
</tr>
<tr>
<td>42126-16</td>
<td>16 pcs.</td>
<td>1.437”</td>
<td>1.550”</td>
<td>.687”</td>
<td>.150”</td>
<td>22407, 22408</td>
<td>41835</td>
</tr>
<tr>
<td>42122-16</td>
<td>16 pcs.</td>
<td>1.550”</td>
<td>1.680”</td>
<td>.635”</td>
<td>.150”</td>
<td>22429, 22430, 22431, 22440, 22441</td>
<td>41852</td>
</tr>
<tr>
<td>42377-16</td>
<td>16 pcs.</td>
<td>1.550”</td>
<td>1.680”</td>
<td>.577”</td>
<td>.150”</td>
<td>22429, 22430, 22431, 22440, 22441</td>
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</tr>
<tr>
<td>42370-16</td>
<td>16 pcs.</td>
<td>1.580”</td>
<td>1.687”</td>
<td>.570”</td>
<td>.140”</td>
<td>221443</td>
<td>41858</td>
</tr>
<tr>
<td>42365-16</td>
<td>16 pcs.</td>
<td>1.610”</td>
<td>1.740”</td>
<td>.570”</td>
<td>.140”</td>
<td>221444</td>
<td>41859</td>
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<tr>
<td>42121-16</td>
<td>16 pcs.</td>
<td>1.625”</td>
<td>1.740”</td>
<td>.635”</td>
<td>.150”</td>
<td>221424, 221425, 221454</td>
<td>41851</td>
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<tr>
<td>42128-16</td>
<td>16 pcs.</td>
<td>1.625”</td>
<td>1.740”</td>
<td>.635”</td>
<td>.250”</td>
<td>221424, 221425, 221454</td>
<td>41851</td>
</tr>
<tr>
<td>42379-16</td>
<td>16 pcs.</td>
<td>1.650”</td>
<td>1.740”</td>
<td>.570”</td>
<td>.250”</td>
<td>221424, 221425, 221454</td>
<td>41859</td>
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<tr>
<td>42371-16</td>
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<td>1.677”</td>
<td>1.740”</td>
<td>.635”</td>
<td>.140”</td>
<td>221447, 221448, 221449, 221450</td>
<td>41851</td>
</tr>
<tr>
<td>42372-16</td>
<td>16 pcs.</td>
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<td>1.740”</td>
<td>.570”</td>
<td>.140”</td>
<td>221447, 221448, 221449, 221450</td>
<td>41859</td>
</tr>
</tbody>
</table>

# Pro Series I.D. Valve Spring Locators

- CNC machined to tolerances ± .002”
- Excellent surface finish
- 8620 material heat treated and black oxide finished

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Fits Spring O.D.</th>
<th>Locator O.D.</th>
<th>Locator I.D.</th>
<th>Locator Thickness</th>
<th>Wall Shoulder Height</th>
<th>Shoulder Diameter</th>
<th>Manley Spring</th>
<th>Use Cutter Number</th>
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<tbody>
<tr>
<td>42446-16</td>
<td>16 pcs.</td>
<td>1.400”</td>
<td>1.410”</td>
<td>.567”</td>
<td>.062”</td>
<td>.163”</td>
<td>.690”</td>
<td>221446SF</td>
<td>41850</td>
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<tr>
<td>42426-16</td>
<td>16 pcs.</td>
<td>1.550”</td>
<td>1.535”</td>
<td>.567”</td>
<td>.062”</td>
<td>.163”</td>
<td>.740”</td>
<td>221432, 221441P</td>
<td>41856</td>
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<tr>
<td>42466-16</td>
<td>16 pcs.</td>
<td>1.550”</td>
<td>1.535”</td>
<td>.567”</td>
<td>.045”</td>
<td>.163”</td>
<td>.740”</td>
<td>221432, 221441P</td>
<td>41856</td>
</tr>
<tr>
<td>42402-16</td>
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<td>1.550”</td>
<td>1.540”</td>
<td>.567”</td>
<td>.062”</td>
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<td>.795”</td>
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<td>1.550”</td>
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<td>.062”</td>
<td>.163”</td>
<td>.802”</td>
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<td>1.570”</td>
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<td>.828”</td>
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<tr>
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<td>1.570”</td>
<td>.567”</td>
<td>.045”</td>
<td>.163”</td>
<td>.828”</td>
<td>221443</td>
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<tr>
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<td>1.570”</td>
<td>.567”</td>
<td>.062”</td>
<td>.163”</td>
<td>.850”</td>
<td>221424, 221425, 221454</td>
<td>41857</td>
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</tbody>
</table>

Please call with your custom spring locator requirements
I.D. Valve Spring Locators

- CNC machined
- Accurate and durable
- Heat treated and black oxide finished

### Part No. | Quantity | Fits Spring O.D. | Locator O.D. | Locator I.D. | Locator Thickness | Wall Shoulder Height | Shoulder Diameter | Spring | Use Cutter Number
---|---|---|---|---|---|---|---|---|---
42460-16 | 16 pcs. | .870" | .845" | .555" | .057" | .100" | .600" | Manley 22160 | None
42153-32 | 32 pcs. | 1.013" | 1.080" | .445" | .045" | .100" | .725" | Manley 221419 | None
42115-16 | 16 pcs. | 1.160" | 1.100" | .500" | .095" | .200" | .610" | Manley 22115 | None
42141-16 | 16 pcs. | 1.255" | 1.240" | .577" | .035" | .145" | .865" | Manley 22411 | 41850
42143-16 | 16 pcs. | 1.255" | 1.240" | .577" | .180" | .145" | .865" | Manley 22411 | 41850
42123-16 | 16 pcs. | 1.255" | 1.250" | .780" | .180" | .090" | .880" | Manley 22411 | None
42334-16 | 16 pcs. | 1.290" | 1.270" | .505" | .035" | .145" | .675" | Manley 221436 | None
42162-8 | 8 pcs. | 1.290" | 1.270" | .520" | .035" | .145" | .675" | Manley 221436 | None
42138-8 | 16 pcs. | 1.290" | 1.270" | .505" | .062" | .145" | .675" | Manley 221436 | None
42165-8 | 8 pcs. | 1.290" | 1.270" | .520" | .150" | .145" | .675" | Manley 221436 | None
42124-16 | 16 pcs. | 1.290" | 1.270" | .570" | .035" | .145" | .675" | Manley 221436 | 41850
42324-16 | 16 pcs. | 1.311" | 1.300" | .812" | .205" | .145" | .875" | Manley 221431 | None
42117-16 | 16 pcs. | 1.324" | 1.300" | .505" | .035" | .145" | .665" | Manley 22421 | None
42130-16 | 16 pcs. | 1.324" | 1.300" | .567" | .035" | .145" | .665" | Manley 22421 | None
42129-16 | 16 pcs. | 1.335" | 1.310" | .505" | .035" | .145" | .615" | Manley 22422 | None
42348-16 | 16 pcs. | 1.340" | 1.320" | .505" | .035" | .145" | .715" | Manley 22435 | None
42168-8 | 8 pcs. | 1.340" | 1.320" | .520" | .035" | .145" | .715" | Manley 22435 | None
42135-16 | 16 pcs. | 1.340" | 1.320" | .567" | .062" | .145" | .715" | Manley 22435 | None
42169-8 | 8 pcs. | 1.340" | 1.320" | .520" | .150" | .145" | .715" | Manley 22435 | None
42344-16 | 16 pcs. | 1.550" | 1.535" | .635" | .035" | .140" | .705" | Manley 22420, 1455, 1456, 1457, 1458, 1459, 1460, 1461 | 41835
42335-16 | 16 pcs. | 1.550" | 1.535" | .635" | .062" | .140" | .705" | Manley 22420, 1455, 1456, 1457, 1458, 1459, 1460, 1461 | 41835
42347-16 | 16 pcs. | 1.550" | 1.535" | .570" | .062" | .140" | .705" | Manley 22420, 1455, 1456, 1457, 1458, 1459, 1460, 1461 | 41856
42119-16 | 16 pcs. | 1.550" | 1.535" | .635" | .062" | .140" | .720" | Manley 22430, 22431, 22440, Isky 9385 | 41835
42317-16 | 16 pcs. | 1.550" | 1.535" | .570" | .062" | .140" | .720" | Manley 22430, 22431, 22440 | 41856
42330-16 | 16 pcs. | 1.550" | 1.535" | .635" | .062" | .140" | .740" | Manley 22432, 22441P | 41835
42326-16 | 16 pcs. | 1.550" | 1.535" | .570" | .062" | .140" | .740" | Manley 22432, 22441P | 41856
42378-16 | 16 pcs. | 1.550" | 1.535" | .570" | .062" | .140" | .765" | Isky 9685 | 41856
42331-16 | 16 pcs. | 1.550" | 1.530" | .570" | .062" | .140" | .750" | Manley 22440 | 41856
42332-16 | 16 pcs. | 1.550" | 1.535" | .570" | .062" | .140" | .810" | Comp 943 | 41856
42333-16 | 16 pcs. | 1.550" | 1.535" | .635" | .062" | .140" | .810" | Comp 943 | 41835

Please call with your custom spring locator requirements
I.D. Valve Spring Locators (Continued)

- CNC machined
- Accurate and durable
- Heat treated and black oxide finished

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Fits Spring O.D.</th>
<th>Locator O.D.</th>
<th>Locator I.D.</th>
<th>Cup Thickness</th>
<th>Wall Shoulder Height</th>
<th>Shoulder Diameter</th>
<th>Spring</th>
<th>Use Cutter Number</th>
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<td>42343-16</td>
<td>16 pcs.</td>
<td>1.560”</td>
<td>1.550”</td>
<td>.567”</td>
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<td>.163”</td>
<td>.802”</td>
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<td>16 pcs.</td>
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<td>1.570”</td>
<td>.570”</td>
<td>.062”</td>
<td>.140”</td>
<td>.825”</td>
<td>Manley 221443</td>
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<tr>
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<td>1.570”</td>
<td>.635”</td>
<td>.062”</td>
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<tr>
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<td>.840”</td>
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<td>.850”</td>
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<td>42120-16</td>
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<td>.705”</td>
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<td>Manley 221420, 1455, 1456, 1457, 1460, 1461 K Motion K1000, K1000H</td>
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<tr>
<td>42374-16</td>
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<td>.675”</td>
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<td>.760”</td>
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<td>.630”</td>
<td>Manley 221447, 221448, 221449, 221450</td>
<td>41858</td>
</tr>
</tbody>
</table>

Please call with your custom spring locator requirements

Double Spindle CNC Turning
Rocker Stud Boss Cutters

- Extra large diameter cutter to completely clean stud bosses while reducing height
- Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>41860</td>
<td>1</td>
<td>Use for Fords and Small Block Chevys</td>
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Cylinder Head Spring Seat Cutters

- Extra strength carbide cutters
- Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

Replacement pilots: 7mm/.274" - 41274, 5/16" - 41516, 11/32" - 41132, 3/8" - 41138

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
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<tbody>
<tr>
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<td>41850</td>
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<td>41857</td>
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<td>41858</td>
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<td>Cuts 1.690&quot; O.D., .570&quot; I.D. with 11/32&quot; pilot</td>
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</table>

Valve Guide Seal Cutters

- Extra strength carbide cutters
- Due to the severe use to which these cutters are subjected, we are not able to warranty damaged goods

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Pilot Size</th>
<th>Seal No.</th>
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<td>5/16&quot;</td>
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<td>11/32&quot;</td>
<td>24035</td>
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<tr>
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<td>1</td>
<td>3/8&quot;</td>
<td>24039</td>
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<tr>
<td>41712</td>
<td>1</td>
<td>3/8&quot;</td>
<td>24036</td>
<td>.530&quot;</td>
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</table>

Valve Guide Seal Cutter Pilot

- For use with any spring seat or seal cutter

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Quantity</th>
<th>Description</th>
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<tbody>
<tr>
<td>41274</td>
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<td>7mm cutter pilot</td>
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<tr>
<td>41516</td>
<td>1</td>
<td>5/16&quot; cutter pilot</td>
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<tr>
<td>41132</td>
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<td>11/32&quot; cutter pilot</td>
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<tr>
<td>41138</td>
<td>1</td>
<td>3/8&quot; cutter pilot</td>
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</table>