Armstrong combines its Trap Valve Stations (TVS) with manifolds into a package called the Condensate Collection Assembly (CCA). This prepackaged assembly offers many great benefits—cost savings in assembly, design flexibility and reduced purchasing and design time. The CCA with TVS 4000 Trap Valve Station and 2000 Series Inverted Bucket Traps is guaranteed for 3 years.

Cost Savings
This preassembled concept offers tremendous savings by reducing multiple component purchases that cause additional purchase order monitoring and shipping costs. Other savings include far less labor time required for field assembly.

This modular forged steel body design provides quick assembly/delivery, reducing overall project costs.

- Minimal welding vs complete manifold fabrication
- Eliminates multiple component purchases
- Reduced design specification costs
- Prefabrication vs. field assembly for easy installation
- Reduced shipping and field handling costs
- Lower long-term maintenance and operating costs
- 3-year guarantee

Design Flexibility
Armstrong can meet virtually any design parameter, including dimensional consistency, with your choice of socketweld or threaded connections. Armstrong inverted bucket, thermostatic, thermostatic wafer, bimetallic or disc steam traps can be provided or any other manufacturer’s two-bolt steam trap can be used. If you require a specific piping arrangement, Armstrong can offer the flexibility to meet your specifications.

Materials
Manifold body: ASTM A105 forged steel

Removable Insulation Package
A removable insulation package is available for all steam and condensate manifolds.
- Inexpensive
- Quick to install
- Removable for maintenance
- Reusable after maintenance
- Weatherproof
- Formed to cover all manifold elements
- Strong, durable cover
- Available to fit all manifold sizes

Freeze Protection Package (CCAF)—Optional
A manifold assembly for more efficient condensate return has another benefit—freeze protection. Armstrong’s innovative manifold design actually serves as a heat station, heating one or more traps if the steam supply is interrupted or shut off to the traps. The protection is accomplished as long as one trap continues to discharge into the manifold. The manifold’s internal syphon tube creates a water seal, which contains the flash steam from the discharge of the live trap. This allows radiant heat to protect shut-off traps from freezing.

An optional freeze protection valve package senses condensate temperature. When this device opens, it drains condensate from the manifold assembly, thus providing further freeze protection.
Pre-Assembled...Condensate Collection Assembly (CCA)

CCA Condensate Collection Assembly with TVS 4000 Trap Valve Station, Optional Freeze Protection and Drain Valve.
Available with Armstrong's inverted bucket, disc, thermostat, thermostat wafer or bimetallic steam traps. Any manufacturer's 2-bolt steam trap can also be applied to Armstrong's trap connectors.

CCA Condensate Collection Assembly With IS-2 Connectors with Strainer, Blowdown Valve and Optional Drain Valve
Available with Armstrong's inverted bucket, disc, thermostat, thermostat wafer or bimetallic steam traps. Any manufacturer's 2-bolt steam trap can also be applied to Armstrong's trap connectors.

How to Order Manifold Packages

<table>
<thead>
<tr>
<th>Manifold Model</th>
<th>Number of Take-offs Per Manifold</th>
<th>Connection Size Take-offs, NPS in (mm)</th>
<th>Connection Size Top, NPS in (mm)</th>
<th>Connection Bottom, NPS in (mm)</th>
<th>Trap Valve Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSD</td>
<td>04</td>
<td>2NPT = 1/2 (15) NPTF</td>
<td>6SW = 1-1/2 (40) SW(^1)</td>
<td>3NPT = 3/4 (20) NPTM</td>
<td>TVS 4000 IS2 with BD IS2 Standard None</td>
</tr>
<tr>
<td></td>
<td>08</td>
<td>2SW = 1/2 (15) SW(^1)</td>
<td>6FW150 = 1-1/2 (40) 150# RF Flange</td>
<td>6FW300 = 1-1/2 (40) 300# RF Flange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>3NPT = 3/4 (20) NPTF</td>
<td>8FW150 = 2 (50) 150# RF Flange</td>
<td>6FW300 = 2 (50) 300# RF Flange</td>
<td></td>
</tr>
<tr>
<td>SMcD</td>
<td></td>
<td>2NPT = 1/2 (15) NPTF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2SW = 1/2 (15) SW(^1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3NPT = 3/4 (20) NPTF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3SW = 3/4 (20) Socketsweld</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCA</td>
<td>204</td>
<td>2NPT = 1/2 (15) NPTF</td>
<td>6SW = 1-1/2 (40) SW(^1)</td>
<td>3NPT = 3/4 (20) NPTM</td>
<td></td>
</tr>
<tr>
<td>Condensate Collection Assembly Frozen Protection</td>
<td>206</td>
<td>2SW = 1/2 (15) SW(^1)</td>
<td>6FW150 = 1-1/2 (40) 150# RF Flange</td>
<td>6FW300 = 1-1/2 (40) 300# RF Flange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>208</td>
<td>3NPT = 3/4 (20) NPTF</td>
<td>8FW150 = 2 (50) 150# RF Flange</td>
<td>6FW300 = 2 (50) 300# RF Flange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>210</td>
<td>3SW = 3/4 (20) Socketsweld</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>212</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Armstrong stocks manifold cores (less nipples, drain valves and trap stations) in these connections.
2. Must pick this bottom connection to use trap station (TVS 4000 only choice) and trap on MSD and SMcD.
3. Nipples connecting manifold to trap station can be Schedule 80 (standard) or schedule 160 (optional).