**VHP® E200PW**  
*Very High-pressure, Pratt & Whitney Approved Emulsion*

TRIM® VHP® E200PW is an emulsion (soluble oil) coolant that specializes in heavy-duty machining and creepfeed grinding of aircraft alloys. Pratt & Whitney has approved this product for use on all materials and it applies to both Pratt & Whitney facilities and authorized subcontractors. The Pratt & Whitney approval number is PMC 9390.

**VHP**

**Stand up to pressure:**

TRIM® VHP® (Very High Pressure) fluids perform in high-volume, high-pressure applications with little to no foam. These specialized heavy-duty emulsions (or soluble oils) are used in very high-pressure operations where extreme lubrication is required.

VHP soluble oils provide the boundary lubrication necessary in operations such as creepfeed grinding, drilling, milling, turning, tapping, or roll-form threading of multiple metals.

VHP soluble oils leave a soft, fluid film for easy cleaning, and lower maintenance costs.

**Choose VHP E200PW:**

- Pratt & Whitney (PMC 9390) approved for use in all grinding and machining operations on all metals
- No foam at very high pressures and volumes
- Contains a proven and highly effective, nonchlorinated, extreme-pressure additive to control built-up edge and wheel loading
- Very high levels of boundary lubrication for superior tapping, reaming, and form grinding results
- Leaves a soft fluid film to prevent sticky ways, chucks, tool holders, and fixtures
- Machines are easily washed off with coolant working solution to minimize the buildup of residues and chips
- Easy recycling or disposal with conventional techniques and equipment
- Runs effectively for long periods without the need for costly additives

**VHP E200PW especially for:**

**Applications** — creep-feed grinding, form grinding, grinding, heavy-duty machining center work, high-pressure, high-volume, machining, reaming, and tapping  
**Metals** — aerospace alloys  
**Industries** — aerospace

VHP E200PW is free of — chlorinated compounds and NPEs
**Application Guidelines**

- Run at lower concentrations for higher speed operations where heat removal is the key issue.
- Run at higher concentrations on soft, gummy materials and for lower speed operations where friction reduction and control of built-up edge are critical.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at [https://www.2trim.us/distributors.php](https://www.2trim.us/distributors.php), your District Sales Manager, or call our Tech Line at 1-800-537-3365.

**Physical Properties Typical Data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color (Concentrate)</td>
<td>Olive green to amber</td>
</tr>
<tr>
<td>Color (Working Solution)</td>
<td>Milky white</td>
</tr>
<tr>
<td>Odor (Concentrate)</td>
<td>Mild, oily</td>
</tr>
<tr>
<td>Form (Concentrate)</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point (Concentrate) (ASTM D93-08)</td>
<td>&gt; 360°F</td>
</tr>
<tr>
<td>pH (Typical Operating as Range)</td>
<td>8.2 - 8.9</td>
</tr>
<tr>
<td>Coolant Refractometer Factor</td>
<td>0.9</td>
</tr>
<tr>
<td>V.O.C. Content (ASTM E1868-10)</td>
<td>112 g/l</td>
</tr>
</tbody>
</table>

**Recommended Metalworking Concentrations**

- Light duty: 5.0% - 5.5%
- Moderate duty: 5.5% - 7.5%
- Heavy duty: 7.5% - 7.5%
- Design Concentration Range: 5.0% - 7.5%

**Concentration by % Brix**

![Graph showing % Brix vs Refractive Reading]

% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 0.9

**Health and Safety**

See the most recent SDS at [https://2trim.us/s/?i=1140-0-en-US-US](https://2trim.us/s/?i=1140-0-en-US-US)
Mixing Instructions

- Recommended usage concentration in water: 5.0% - 7.5%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: apps.masterfluidsolutions.com/makeup/.
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

Additional Information

- Use Master STAGES™ Whamex™ for a quick and thorough precleaning of your machine tool and coolant system.
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.

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