

**STEAM & CONDENSATE SYSTEM SEMINARS**

<b><u>SERIES</u></b>	<b><u>SUBJECT</u></b>
<b>000</b>	<b>INTRODUCTION</b>
<b>100</b>	<b>WATER AND STEAM</b> A discussion of the thermal properties of both as it relates to the drying of paper.
<b>200</b>	<b>MOTION (OR TRANSFER)</b> A discussion of the mechanics of the transfer of mass, including moisture, and heat as they relate to cylinder drying of paper.
<b>300</b>	<b>HEAT TRANSFER AND PAPER DRYING</b> An overview of the basic formula for heat transfer as it relates to cylinder drying of paper.
<b>400</b>	<b>CYLINDER DRYING PROCESS</b> Dissects the cylinder drying of paper into incremental phases.
<b>500</b>	<b>DRYER DRAINAGE</b> A discussion of the removal of condensate from the dryer, particularly as it relates to syphon selection.
<b>600</b>	<b>SYSTEM THERMAL ENGINEERING</b> The basics of the determination of the thermal energy required for a dryer to remove water from paper.
<b>700</b>	<b>DRYER SEGMENTATION</b> A discussion of the need for warm-up, constant rate and falling rate zones in a dryer.
<b>800</b>	<b>STEAM ARCHITECTURE</b> A discussion of cascading vs. recirculating designs for dryers and dryer sections.

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<b><u>SERIES</u></b>	<b><u>SUBJECT</u></b>
<b>900</b>	<b>SYSTEM FLOW ENGINEERING</b> Application of the conservation of mass as it relates to performing a water and steam balance on a dryer and dryer sections.
<b>1000</b>	<b>SYSTEM CONTROL STRATEGIES</b> A review and comparison of blowthrough flow and differential pressure control and some guidelines for making a selection.
<b>1100</b>	<b>YANKEE DRYERS</b> A review of the unique application of steam and condensate systems on Yankee dryer cylinders.
<b>1200</b>	<b>SYSTEM SURVEYS OR AUDITS</b> A review of the need and benefits of periodic check-ups.
<b>2000</b>	<b>THERMAL PRODUCTS*</b> <ul style="list-style-type: none"><li>• Thermocompressors</li><li>• Steam Condensers &amp; Vacuum Receivers</li><li>• Steam Conditioners</li><li>• Dryer Bars</li></ul>
<b>3000</b>	<b>FLUIDS HANDLING PRODUCTS*</b> <ul style="list-style-type: none"><li>• Valves</li><li>• Joints</li><li>• Syphons</li><li>• Ballsights</li><li>• Flexible Hoses</li><li>• Piping</li><li>• Separators &amp; Modules</li><li>• Traps</li></ul>
<b>4000</b>	<b>CONTROL PRODUCTS*</b> <ul style="list-style-type: none"><li>• Actuators &amp; Positioners</li><li>• Seal Pots</li><li>• Safety Relief Valves</li><li>• Transmitters</li><li>• Controllers</li><li>• Orifice Plates</li></ul>

\*An overview of the individual products and their application to steam and condensate systems.