

**ISD Spring Technical Event**  
June 5-6, 2014

Session	Presenter	Length
<b>Fugitive emissions</b> <ul style="list-style-type: none"> <li>• Fugitive emission</li> <li>• Legislation</li> <li>• Certified valve packing technology</li> <li>• Valve sealing performance standards (comparison)</li> <li>• New products development</li> </ul>	Teadit – Ron Walters	1 hour
<b>Fluoropolymer Basics and Applications</b> <p>This talk will cover the fundamentals of fluoropolymer materials and applications where they are utilized.</p> <p>Topics covered:</p> <ul style="list-style-type: none"> <li>-Tools for solving problems that cannot be resolved with traditional elastomers</li> <li>-Examine considerations when choosing a fluoropolymer in reference to design, application, and cost</li> <li>-Instruction on the process for choosing the correct fluoropolymer for specific applications</li> <li>-Provide instruction on formulating and processing fluoropolymers</li> </ul> <p>Specific materials to be reviewed:</p> <ul style="list-style-type: none"> <li>-Fluoroelastomers (FKM)</li> <li>-Perfluoroelastomers (FFKM / PFE)</li> <li>-Fluoroplastics (PTFE, FEP, THV, PVDF, etc.)</li> </ul> <p>Those attending should have a basic understanding of elastomers and their end-use applications. The class will provide instruction on how to make decisions of choosing the correct fluoropolymer for the right application. Primary focus will be on elastomers with some additional information on plastics.</p>	<b>Ed Cole</b> - Sr Chemist 3M Advanced Materials Division	2 hours
<b>Rubber Manufacturing Processes: How Rubber Polymers are Constructed</b> <p>This is a general technical presentation on what kinds of ingredients are used to make the various varieties of rubber sheet used in the gasket and sealing business. Background on these materials will explain why neoprenes, EPDMs and SBRs are considered appropriate alternative compounds for sealing widely divergent applications. Extenders, ozone resistances, oils and fillers are lesser ingredients that enhance a compounds resistance to sealing uses.</p> <p>Emphasis will be given to learning what compounds can be chosen for oil resistance, oil proof-ness, weather resistance, wear resistance, tear resistance and other demands of the environment. Like baking a cake, choices of ingredients can alter the end result of what's made. There will be a of couple case studies highlighting misuse vs desirability.</p>	American Biltrite - Paul Smith	2 hours
<b>HNBR/NBR</b> (description TBD)	Zeon	2 hours

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<p><b>How to make rubber seals: Discussion and Shop Tour.</b> Tour through productions areas including</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Rubber Lab Rubber Prep Deflashing Packaging</p> </div> <div> <p>Mold Shop Molding Inspection</p> </div> </div> <p>A more in depth discussion of the above topics than the Shop Tour noted below, this session will cover Injection, Transfer &amp; Compression Molding Operations. Attendees will observe specific operations in order to get a better feel for methods used and difficulties encountered during production.</p>	Precision Associates	2 hours
<p><b>Shop tour:</b> Tour through productions areas including</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Rubber Lab Rubber Prep Deflashing Packaging</p> </div> <div> <p>Mold Shop Molding Inspection Clean Room</p> </div> </div> <p>Tour will give a quick overview of these operations used by Precision Associates.</p>	Precision Associates	1 hour
<p><b>Rubber Testing &amp; ASTM D2000</b></p> <p>Attendees will see a presentation that covers the ASTM specification D2000, and visit a rubber lab. Attendees will observe the specific tests required for this specification as well as other laboratory operations.</p> <p>ASTM D2000 Physical Properties Testing includes:</p> <ul style="list-style-type: none"> <li>• Tensometer (Tensile, Modulus, Elongation, Tear Resistance, Bond Strength)</li> <li>• Compression Set</li> <li>• Heat Ageing</li> <li>• Fluid Ageing (Room Temp &amp; Elevated Temp)</li> <li>• Brittle Point Testing</li> </ul> <p>Additional Testing subjects:</p> <ul style="list-style-type: none"> <li>• Temperature Retraction (TR-10, etc.)</li> <li>• Compressive Stress Relaxation (CSR)</li> <li>• Hardness Testing (Durometer, IRHD)</li> <li>• Specific Gravity</li> <li>• Rapid Gas Decompression (RGD)</li> <li>• Steam Resistance</li> <li>• FTIR</li> <li>• Rheology</li> <li>• Extrusion Resistance</li> </ul>	Precision Associates	2 hours
<p><b>Medical Product Considerations for Sealing</b></p> <p>Class includes a discussion of considerations seal distributors should be familiar with when selling to the medical industry, including terms used by the rubber industry as it relates to the medical industry, specification definitions, etc. Includes in depth tour of clean room operations.</p>	Precision Associates	2 hours

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<b>How to pack a pump</b>  We will review packing selection and installation in a power point overview that lasts 30 to 45 minutes and then we'll move to an actual pump and un-pack and re-pack it ( and valve as well ) with hands on participation. Limit 10 students per class.	American Braiding	2 hours
<b>Fugitive emission packing to the new API 622 specification, cutting edge Valve Sealing Technology</b>  This session will include both lecture and hands-on work with packing.	American Braiding	2 hours
<b>Fluoroelastomers</b>  A look at some of the latest product developments and implications for the sealing business.	Alpha Associates	2 hours