

Tuesday Morning, November 11, 2014

Exhibitor Technology Spotlight

Room: Hall ABC - Session EW-TuM

Exhibitor Technology Spotlight Session

Moderator: Chris Moffitt, Kratos Analytical Limited, UK

10:20am **EW-TuM8 High Speed Water Vapor Cryopumps: Increasing Tool Throughput and Process Yield with Polycold PFC and MaxCool Products**, *C. Rebecchi, Kevin Flynn*, Brooks Automation, Inc., Polycold

Water vapor is the primary reason for slow pumpdown from crossover to ultra high vacuum in most vacuum systems. At chamber pressures near crossover, water vapor easily accounts for the majority of a vacuum system's gas load. In addition, water vapor and dissociated oxygen are often unwanted contaminants that can physically or chemically reduce product quality and yield in vacuum deposition processes. Since water vapor is a polar molecule, it easily adheres to chamber surfaces and desorbs slowly. High speed water vapor pumping is especially critical in large-scale commercial vacuum processes, where maximum tool throughput, product quality, and process repeatability are most valued. When ambient chamber temperatures allow, the most effective method to increase the overall water vapor pumping speed in a vacuum system is to install a large cryosurface directly inside the vacuum process chamber. In this location, the cryosurface will add effective supplemental water vapor pumping that is not diminished by vacuum conductance limitations such as high vacuum ports or valves. Polycold PFC and MaxCool products feature extremely fast cryosurface cooldown and defrost capabilities, which allow cryosurface placement directly inside a vacuum process chamber for optimum high speed water vapor pumping. Polycold PFC and MaxCool products also feature both high cooling capacities and low-temperature performance able to cool very large cryosurfaces for very high speed water vapor pumping. The industry-leading Polycold MaxCool 2500L cryochiller features unbeaten low temperature performance for >100,000 l/s water vapor pumping down to 2E-9 torr water vapor partial pressure and >200,000 l/s of water vapor pumping down to 4E-8 torr water vapor partial pressure.

10:40am **EW-TuM9 Stylus Profilometry – Bruker's DektakXTL delivers Innovation in Flexibility and Ease of Use**, *Eric Rufe*, Bruker

Bruker will present DektakXTL large area stylus profilometry system and advantages of new automated scanning and alignment capabilities, as well as simplified quick acquisition tools for fastest time to data supporting applications in a range of industries including but not limited to flexible electronics, display and touch screen manufacture.

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