



45TH **TURBOMACHINERY** & 32ND **PUMP SYMPOSIA**
HOUSTON, TEXAS | SEPTEMBER 12 – 15, 2016
GEORGE R. BROWN CONVENTION CENTER

Mechanical Seal Fundamentals

Session I

John Merrill



TEXAS A&M
UNIVERSITY



John Merrill

- Principal Engineer & Technical Training Manager, EagleBurgmann USA
- 25 years experience with mechanical seals and systems
- BSME Tulsa 1991, MSME Western Michigan/NC State 2008
- Various Hydraulic Institute committees since 2003

Session I

- Operating principles
- Classification of mechanical seals
- Dual gas seals
- Containment seals



45TH **TURBOMACHINERY** & 32ND **PUMP SYMPOSIA**
HOUSTON, TEXAS | SEPTEMBER 12 – 15, 2016
GEORGE R. BROWN CONVENTION CENTER

Mechanical Seal Fundamentals

Session 2

Brian Kalfrin

Brian Kalfrin, John Crane

Brian Kalfrin – John Crane

Brian Kalfrin is a Regional Engineer for John Crane in Pasadena, Texas. He has over 15 years of experience with mechanical seals and related equipment. Mr. Kalfrin is responsible for troubleshooting and diagnostic failure analysis and root cause analysis for seal and sealing system applications. He is involved in evaluating new seal applications as well as optimizing existing sealing solutions to meet reliability and emission requirements. Mr. Kalfrin has been actively involved with training internal John Crane engineers as well as external customers and seal users.

Mr. Kalfrin received his BS degree in Mechanical Engineering from Drexel University. He is a member of the Texas A&M Pump Symposium Advisory Committee.

Session 2

- Materials of Construction
- Secondary Seals
- Arrangements of Mechanical Seals



45TH **TURBOMACHINERY** & 32ND **PUMP SYMPOSIA**
HOUSTON, TEXAS | SEPTEMBER 12 – 15, 2016
GEORGE R. BROWN CONVENTION CENTER

API Seal Piping and Failure Analysis

Jose Martin

ATS Engineer - Flowserve



TEXAS A&M
UNIVERSITY



Jose Martin– Flowserve

- Jose Martin is an Applied Technical Solutions Engineer in the Flow Solutions Division of Flowserve in Temecula, CA with more than 20 years of experience in mechanical seal application, trouble-shooting, and design.
- In his current capacity, he provides technical support to all Field Sales and Application Engineers in Latin America and Western Canada
- He has also held on-site positions during this time as a field resource for mechanical seals and related auxiliary systems at two major refineries, and has worked in Field Sales as well.



45TH **TURBOMACHINERY** & 32ND **PUMP SYMPOSIA**
HOUSTON, TEXAS | SEPTEMBER 12 – 15, 2016
GEORGE R. BROWN CONVENTION CENTER

Mechanical Seal Fundamentals

Session 4

Henri Azibert

Henri Azibert – Fluid Sealing Association

- Henri V. Azibert started his career as counsel for the State Rating Bureau for the Division of Insurance for the Commonwealth of Massachusetts. He then joined the A.W. Chesterton Company where he had responsibility for all the mechanical seal and mechanical packing engineering staff and product lines. For the past two years he has been retained as the Technical Director for the Fluid Sealing Association.
- He received his Baccalauréat from Lycée Louis Le Grand, a B.A. in Political Science from the University of Massachusetts, a Jurisprudence Doctor from Boston College, and a Masters degree in Mechanical engineering from Northeastern University.
- Mr. Azibert was granted over thirty patents on mechanical seal designs and improvements. He is a member of the API 682 and 3A Mechanical Seal Standard Task forces, has been a member of the Texas A&M Pump Symposium Advisory Board; he has chaired several committees for the Fluid Sealing Association.

Session 4

- Seal Chamber
- Seal Installation
- Energy Consumption of Sealing Systems
- Life Cycle Costs