



BILL MCNALLY

www.mcnellyinstitute.com

Mr. McNally is recognized as one of the foremost authorities on rotating equipment and is credited with training maintenance personnel around the world for more than 35 years. The knowledge that Mr. McNally conveys in his training has been used in plants worldwide extending equipment life, thus yielding thousands and thousands of dollars in savings. His training style will not only open your mind to absorb the information, but will also motivate those who attend.



www.sealing-specialists.com

Sealing Specialists, Inc. has been sponsoring pump and seal training in the St. Louis area over 30 years. SSI has been serving industry in the Missouri/Illinois area over 30 years.

Our mission is to provide our customers with quality products and service that far exceeds their expectations.

**If it's important to you,
it's important to us.**

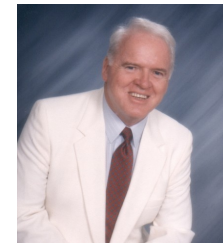
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ST. LOUIS, MO
PERMIT #4400

SEALING SPECIALISTS, INC.

6109 Baumgartner Crossing
ST. LOUIS, MO 63129

Address service requested

BILL MCNALLY



AND



INVITE YOU TO OUR

PUMP



&

SEAL

SCHOOL

**JOIN US WEDNESDAY AT BUSCH
STADIUM FOR A NIGHT WITH THE
ST. LOUIS CARDINALS**



Register early and receive a Free Jacket





Sealing Specialists would like to cordially invite you to the **2012 Bill McNally Pump and Seal School**. This year the training is May 2nd and 3rd at the Hilton St. Louis at the Ballpark.

The instructor, **Bill McNally**, is recognized as one of the foremost authorities on rotating equipment. The course agenda will be based around **troubleshooting, root cause failure analysis, and extending equipment up-time**.

Who should attend: The plant personnel directly involved in maintenance, design, engineering, production, and those who have a vested interest in **increasing plant up-time availability**.

The **fee** for the school will be **\$475.00**.

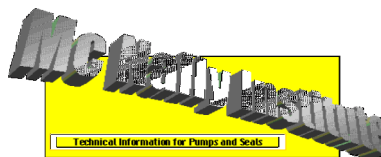
Those companies sending multiple attendees will receive **one free** registration for each five paid registrations received by April 2nd, 2012. **Breakfast, lunch, and training materials** will be provided. As an **added incentive**, those attendees whose registration and payment is received prior to March 26th, 2012 will receive a **Sealing Specialists lined jacket**. Registrants will also be treated to a night at Busch Stadium to watch the

St. Louis Cardinals!

This correspondence is to advise you well in advance so budgetary and personnel arrangements can be made for those who will be attending. We look forward to seeing you at the training.

Sincerely,

Jerry Gravenmier
President



**THE STANDARD TWO-DAY
PUMP AND SEAL SCHOOL**

- How to determine if you are getting good seal and bearing life.
- Pump standards. How do they affect seal performance?
- The different types of pumps.
- How the pump curve is created and how to read a pump curve to evaluate the pump's performance .
- The basic formulas for converting head to and from pressure.
- The relationship between centrifugal pump head, pressure, capacity and liquid velocity.
- The three basic rules needed to understand the problems we have with centrifugal pumps.
- All about shaft deflection. Including an explanation of L^3 / D^4 .
- How to reduce shaft deflection.
- The magnetic drive pump. Does it eliminate the need for seals?
- Dynamic balance of the rotating assembly. Is it necessary?
- Alignment methods you should use to align the pump to its driver.
- Where vibration analysis is sensible and where it is not.
- The pump affinity laws predict what will happen if you change the impeller diameter or the pump speed.
- All you need to know about rub marks.
- Bearing lubrication. Which is the best method?
- The role of vibration analysis in troubleshooting pumps.
- The best way to prevent moisture and solids from entering the bearing cavity.
- Do mechanical seals have to leak a little?
- An explanation of seal face flatness.
- Do seal faces have to be lubricated? Can they run dry?
- The main causes of premature mechanical seal failures.
- Hydraulic seal balance, reverse balance and two way balance.
- Rotary vs. stationary seal designs.
- Where to use self aligning seals.
- The role of the large stuffing box in determining seal life.
- Reliable methods of sealing liquids that contain solids.
- Where to use rubber bellows seals.
- The problems we find with most seal installations.
- Do you need dual seals to seal fugitive emissions?
- Cartridge design seals. What are their limitations?
- Gas seals. Do you need them?
- Can the metal bellows seal eliminate the need for low temperature rubber parts?
- Split seal designs. Are they reliable enough for the process industry.
- Seal predictive maintenance. Is there a sensible program available?
- The use of dual mechanical seals. When are they not a sensible choice?
- The most desirable features in a mechanical seal.

Pump & Seal School Registration

PLEASE REPLY BY APRIL 2nd, 2012

School Date: May 2nd & 3rd, 2012
 Time: 8:30 AM to 4:30 PM
 Location: Hilton St. Louis at the Ballpark
 One South Broadway
 St. Louis, MO 63102
 314-421-1776
 Fee: \$475.00

	<u>NAME</u>	<u>TITLE</u>
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____

Plan on attending Ballgame: yes ___ no ___

Company: _____
 Address: _____
 City: _____, State: _____ Zip: _____
 Phone: _____ Fax: _____
 Authorized by: _____

Method of Payment

Visa Bill Me
 MasterCard Check
 American Express

Credit Card # _____ Exp. date _____
 Signature _____

*For overnight reservations call
 The Hilton St. Louis at the Ballpark @ 877-845-7354.
 Specify Sealing Specialists Pump & Seal School*

Please mail/fax/
 e-mail form to: Sealing Specialists, Inc.
 6109 Baumgartner Crossing
 St. Louis, MO 63129
 Ph: 314-843-5111 Fax: 314-843-4877
 Email: salesmo@sealing-specialists.com