



The Manufacturing Society  
Northern Lights Chapter #370

# The Northern Light

June 2005

**New Hyperlink Edition** - Please try our new active website and e-mail links.  
For improved delivery efficiency, please provide your e-mail address to [smenlc@yahoo.ca](mailto:smenlc@yahoo.ca).

## Don't get Screwed! Know Your Threaded Connections

[www.noetic.ca](http://www.noetic.ca)



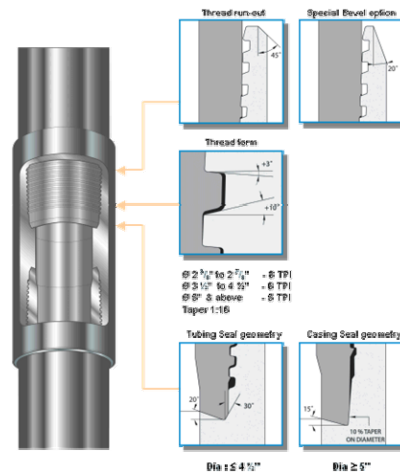
Threaded connections are a staple of well construction in the oil industry, providing a robust, rapid means of joining lengths of pipe into a contiguous pressure vessel of any length, in some cases reaching lengths of several miles. While standard API connections still dominate well construction, increasing service demands require higher performance connections in a larger portion of the wells being drilled today. A plethora of connection options is available to meet the range of requirements, and with each connection is a unique set factors to consider for successful implementation, including: design features to address specific performance requirements; manufacturing processes to deliver products fulfilling the design intent, quality assurance requirements to ensure the performance requirements are met; thread dope issues for make-up and service requirements; and installation procedures to maximize running efficiency and minimize construction time.

The presentation gives an overview of available connection designs, a summary of various oilfield applications for connections, and then demonstrates appropriate and inappropriate connection choices for the applications. A discussion of quality assurance issues will follow, including typical QA, and some of the less obvious QA issues that are only now being recognized and addressed with new gauging methods. Finally, an overview of new running challenges will be provided along with some of the solutions now being applied to address these challenges to both increase make-up reliability and running speed for casing.

Noetic Engineering Inc. is a technology leader in the upstream oil and gas industry with a primary focus on well structures. Wellbore design, deformation control, connection design and analysis, quality assurance and running equipment are all areas of significant contribution, and examples of these contributions will be demonstrated in the presentation.



**And remember...**  
*Member pricing is always extended to members of other technical societies such as ASM, AWS, CWA, NACE, CSME, ASME, etc.*



### WHERE TO GO!

U of A Faculty Club  
11435 Saskatchewan Drive  
Wednesday, June 08, 2005  
Social Hour 5:30 – 6:30 pm  
Dinner 6:30—7:30 pm  
Presentation 7:45 pm

**COST:** \$20 members  
\$25 guests  
\$10 student members  
\$15 student guests

**Member pricing is always extended to members of other technical societies such as ASM, AWS, CWA, NACE, CSME, ASME, etc.**

### WHO TO CALL!

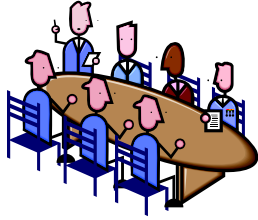
RSVP to SME voice mail at **619-0647** or e-mail [smenlc@yahoo.ca](mailto:smenlc@yahoo.ca) by the end of the day Monday, June 6<sup>th</sup>, 2005.



**PLEASE DO NOT "REPLY" TO THIS NEWSLETTER**

The SME Northern Lights Chapter normally holds technical meetings on the second Wednesday of each month except for the months of April (**Capstone Honours – please note change from March to April**), July, and August.

## Northern Lights Chapter Executive



### Chair

Andrew Hanson,  
[andrew.hanson@canada.weatherford.com](mailto:andrew.hanson@canada.weatherford.com)  
Weatherford Wellhead Systems 436-4450

### Chair-Elect

Rick Chetram, [rchetram@shaw.ca](mailto:rchetram@shaw.ca)  
Argus Machine Co. Ltd. 434-9451

### Past Chair

Mike Rees, [mike.rees@Halliburton.com](mailto:mike.rees@Halliburton.com)  
Sperry-Sun Halliburton 955-4942

### Secretary

Alex Connell, [alex.connell@L-3com.com](mailto:alex.connell@L-3com.com)  
Spar Aerospace Limited 447-6703

### Treasurer

Matthew Webster,  
[mattheww@academypetroleum.com](mailto:mattheww@academypetroleum.com)  
Academy Petroleum Industries 466-6360

### Vice-Chair, Membership

**VACANT**

### Vice-Chair Program

Serge Lemay, [slemay@streamflo.com](mailto:slemay@streamflo.com)  
Stream Flo Industries 468-6789

### Vice-Chair, Special Projects

**VACANT**

### Newsletter Editor

Doug Small, [dougsmall@shaw.ca](mailto:dougsmall@shaw.ca)  
Amec Americas Ltd. 968-3409

### Capstone Committee Chair

Craig Clark, [cwclark77@yahoo.com](mailto:cwclark77@yahoo.com)  
Weatherford Completion Services 465-9311

### Mailing Address

Society of Manufacturing Engineers  
Northern Lights Chapter #370  
5328 Calgary Trail South  
Box 1333

Thank you for reading the *Northern Light*. If you are interested in presenting at an SME dinner, please contact Serge Lemay, [slemay@streamflo.com](mailto:slemay@streamflo.com). Kindly include the field you are working in and the subject you are interested in presenting to the chapter members and guests. Thank you.

## Mark your calendar:



[www.qualitysteel.com](http://www.qualitysteel.com)



[www.amtech-group.com](http://www.amtech-group.com)

Join us in September as our regularly scheduled SME Dinner Meeting will be a tour of Quality Steel Foundries Ltd. located in Nisku, Alberta

Our October SME Dinner Meeting will include a presentation by Amtech Aeronautical Limited, a professional engineering company involved in the aeronautical and military engineering areas.

## 5<sup>th</sup> Annual Capstone Honours a Benefit for Students and Industry

The 5<sup>th</sup> Annual Capstone Honours Awards Banquet was held on April 6<sup>th</sup>, 2005 at the University of Alberta Faculty Club. This event showcases the outstanding designs and design presentations of the University of Alberta Mechanical Engineering graduating class.



This year three diverse projects were presented at the event. The first presentation was the design of a soil sampling device presented by the team of Mohamed Chebaro, Tim Wright, Francis Waterhouse, and Po To Benedict Lau. This project was sponsored by Star Quality Samplers and was selected to win the Capstone award for Design for Manufacture.

Following an outstanding dinner, Jenelle Fisher, Robert Farthing, Anthony Chan, and Thomas Auer presented their design of a surgical nail removal tool sponsored by SJ Design Inc. The design of the surgical nail removal tool was awarded the Thorsten Watterodt Design Creativity award.

The third and final presentation of the evening was the optimization of a spa plumbing design sponsored by Blue Falls Manufacturing Ltd. Chad Benson, James Brown, Devin Eley and Kirk Giesbrecht took home the award for Technical Excellence.

Top honours for the Glatz Memorial award went to Fisher, Farthing, Chan, and Auer for their design of a surgical nail removal tool.

Each member of all three design teams received:

- The World's Only Two Speed Design Trophy
- A cash award of \$250
- A complete suite of solid modeling, finite element and dynamic analysis software by Solid-works

Special thanks to our generous sponsors who have helped to make this Alberta's premiere event for the recognition of excellence in undergraduate mechanical engineering design.

We welcome your involvement in this dynamic, well established celebration of design. If you are interested in attending or becoming involved in the 2006 Capstone Honours Design Awards please contact Craig Clark at [smenlc@yahoo.ca](mailto:smenlc@yahoo.ca).