2019 WELDING SUMMIT PROGRAM PREVIEW

August 29, 30
The Woodlands Resort
The Woodlands, TX

aws.org
TABLE OF CONTENTS

General Information
Event Hours ................................................................. 3
On-Site Registration ......................................................... 3
Event Map ....................................................................... 4

Education Program .......................................................... 5 – 10

Keynotes
Opening Keynote: Welding Economy ................................. 5
Keynote Luncheon ............................................................. 7
State of Industry Keynote ................................................ 9

Exhibitor Information
Registration, Setup, Refreshment Breaks,
Networking and Happy Hours ........................................ 11

Event Hours

- Wednesday, August 28
  1:00 PM – 6:00 PM

- Thursday, August 29
  7:30 AM – 5:00 PM

- Friday, August 30
  7:30 AM – 11:30 PM

On-Site Registration

GRAND BALLROOM LOBBY

- Wednesday, August 28
  1:00 PM – 6:00 PM

- Thursday, August 29
  7:30 AM

- Friday, August 30
  7:30 AM
Event Map
The workshop is designed to help those who are responsible for welding identify and quantify how welding efficiencies can predict your quality outputs. You will learn the questions to ask and what to look for using Ratios that point you to root cause for Fabrication issues.

Labor shortages, escalating costs and volatile market trends have caused many welding operations to make tough decisions based on what they believe fundamental project success looks like, what activities are necessary to their projects and what their proper chronological order should be to meet business and financial goals. This thought-provoking presentation digs deeper into the Welding Economy, detailing safe and economical steps in the execution, allied process and nondestructive examination of welded construction and fabrication, and how these lead to better welding cost and schedule performance.
10:00 AM – 10:30 AM
Greater competition, slimmer margins, increasing project complexity and a scarcity of skilled labor all combine to make the current market extremely tough for businesses to be successful. To stay competitive, we must look for new tools and methods – especially where technology has been leveraged – to do more with less. Within the welding industry, adopting processes such as modified short-circuit and advanced waveform pulsing GMAW, and utilizing inspection techniques such as PAUT are components of that technological edge. Coupling these with a new take on welding operations planning is providing an advantage in this tough market.

11:00 AM – 11:30 AM
Anyone considering HDMT to self-perform or supplement welding work scopes using subcontract HDMT should attend. This presentation will provide exposure to the physics of welding, including: how a welding TIG arc is produced and how adding filler metal changes the arc energy; step-by-step examination of how adding Hot Wire and automated Pulsating Wire Feed increases deposition rates and improves weld quality while mitigating the degradation of arc energy; and first-hand welder training and equipment maintenance experiences. A case study of a large project using HDMT technology will be presented for discussion.

11:30 AM – 12:15 PM
Morning Session Panel Discussion – Attendee Q&A
1:30 PM – 2:00 PM

**Industrial Gas Supply Mode Efficiencies**

*Presenter: Fred Schweighardt, National Project Manager and International Expert, Air Gas an Air Liquide Company*

This presentation will cover the true cost of industrial gas supply modes and some of the ways to reduce that cost, focusing on handling, rental, and molecule costs, with a strong emphasis on safety. We will show methods to calculate the TCO (total cost of ownership) of the various supply systems, including compressed cylinders (both single and packs), liquid cylinders, and bulk liquid supply.

2:00 PM – 2:30 PM

**Improving Pressure Piping Fabrication Productivity, Safety and Quality Through Implementing Modern Processes**

*Presenter: Lulian Radu, PCL Industrial Management Inc.*

The investment in building and upgrading oil extraction and processing facilities is significant and it is estimated that will continue to grow substantially over the next decade. Productivity improvements, enhanced fabrication technology and creative solutions are necessary to keep pace with the accelerated development of oil extraction, recovery and processing needs.

The presentation focuses on increasing productivity, without compromising quality, of shop fabricated pressure equipment built to ASME pressure piping Code and numerous owner requirements. Several methods and initiatives used to increase productivity, and by extension safety and quality, are presented and discussed; including lean manufacturing, electronic welding data management, increasing shop work flow and the use of high productivity welding processes.

2:30 PM – 3:00 PM

**Recruitment Strategies for Welding Professionals and Craft**

*Presenter: Darrin Vander Toorn, President, Dutch Resources, Inc.*

This presentation will cover the following: It’s a Welder’s Job Market: Understanding the Target Market for the work you have • Attracting the Skills, You Need to Keep Schedule and Budget • Identifying What Skilled Crafts You Need and How to Get Them on Your Job • Recruiting the Right Welders and Achieving Industry Leading Pass Rates in the Test Booths • Assessing Your Process and Your Recruiters’ Strengths and Weaknesses • Continuity: Establishing a Program to Keep Your Welders Certified and Ready
Materials, labor and overhead are the cost elements of any product. At SNC Lavalin’s Sealy manufacturing facility, first two are being analyzed using production schedule performance by welding process (GTAW, SMAW, GMAW, FCAW, SAW) then performing comparative studies to establish a welding cost baseline. This presentation will review how data derived from the cost estimate will:

lead to the adoption and execution of the most efficient methods;

reinforce the selling price of products for quotation purposes;

determine tender viability and profitability considering existing methods and competition;

determine whether parts and subassemblies should be fabricated in-house or purchased from a vendor;

and examine investment costs of new equipment to judge overall economics demonstrating savings.

Materials, labor and overhead are the cost elements of any product. At SNC Lavalin’s Sealy manufacturing facility, first two are being analyzed using production schedule performance by welding process (GTAW, SMAW, GMAW, FCAW, SAW) then performing comparative studies to establish a welding cost baseline. This presentation will review how data derived from the cost estimate will:

lead to the adoption and execution of the most efficient methods;

reinforce the selling price of products for quotation purposes;

determine tender viability and profitability considering existing methods and competition;

determine whether parts and subassemblies should be fabricated in-house or purchased from a vendor;

and examine investment costs of new equipment to judge overall economics demonstrating savings.

Historically, piping, plate, fittings, valves and long lead equipment (LLE) are specified and orders placed well in advance of site or plant mobilization. Weld metal is typically not ordered until after mobilization and delivery of materials and LLE but should actually be explored as soon as possible upon job award. A multitude of factors, including rapidly changing market conditions, tariffs, general reductions in inventory, minimum order requirements and more are now impacting the availability and delivery of both commodity and specialty alloys, and waiting for weld metal procurement may artificially introduce risk and critical schedule dilemmas. This presentation offers an update on the status of weld metal procurement and is intended to inform all entities including subcontractors and fabricators on ways to avoid the risk associated with not having the right weld metal at the job when you need it.
FRIDAY, AUGUST 30

STATE OF INDUSTRY KEYNOTE

9:00A AM – 10:00 AM
Presenter: Chris Paschall, Industrial Info Resources, Inc
Room | Grand Ballroom II

Description pending

Chris Paschall

10:00 AM – 10:30 AM
Creep Strength Enhanced Ferritic P91 Welding
Presenter: Josh Armstrong, United Services Group
Room | Grand Ballroom II

Discussion of best practice welding activities of creep strength enhanced ferritic Grade P91 steels will range from joint preparation to hardness testing after post-weld heat treatment, with the focus on cost savings of first-time quality performance.

10:30 AM – 11:00 AM
Purgeless Pipe TIG Welding
Presenter: John R. Corrado, Corr-Met, Inc.
Room | Grand Ballroom II

Corr-Met located in Brighton, MI manufactures coated and cored TIG wires for root pass pipe welding. These QWP coated and cored wires eliminate the need for backing, paste, or gas purging on the ID of the joint and prevent oxidation or sugaring on the root pass. The one step process saves time and money while delivering X-Ray quality weld root pass. This presentation will highlight the variety of coated and cored wire grades available and the process by which pipes to be joined are fixtured with a gap, tack welded together, then welded with standard TIG equipment.
When correctly applied, robots save money and improve quality. When misapplied the robot becomes an expensive dust collector. Using case histories this session will present how to determine when and if a project is economical to automate. Topics include initial robot cost, programming costs, filler material savings, safety, part accuracy, joint configuration, production volumes and technological competency necessary to succeed.

Closing Remarks

Room | Grand Ballroom II
### WEDNESDAY, AUGUST 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM – 12:00 PM</td>
<td>Registration Set Up</td>
<td>Grand Ballroom Lobby</td>
</tr>
<tr>
<td>8:00 AM – 12:00 PM</td>
<td>Exhibition and General Session Set Up</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
<tr>
<td>1:00 PM – 6:00 PM</td>
<td>Exhibitor Company Set Up</td>
<td>Grand Ballroom</td>
</tr>
</tbody>
</table>

### THURSDAY, AUGUST 29

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM - 9:00 AM</td>
<td>Coffee and Exhibitor Networking</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
<tr>
<td>10:30 AM – 11:00 AM</td>
<td>Refreshment Break and Exhibitor Networking</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
<tr>
<td>3:00 PM – 3:30 PM</td>
<td>Refreshment Break and Exhibitor Networking</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
<tr>
<td>5:00 PM – 6:30 PM</td>
<td>Exhibitor Happy Hour</td>
<td>Grand Ballroom II &amp; III</td>
</tr>
</tbody>
</table>

### FRIDAY, AUGUST 30

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM – 9:00 AM</td>
<td>Coffee and Exhibitor Networking</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
<tr>
<td>9:00 AM – 11:00 AM</td>
<td>Exhibitor Break Down</td>
<td>Grand Ballroom I &amp; III</td>
</tr>
</tbody>
</table>
2019 Welding Summit

August 29, 30

The Woodlands Resort  |  The Woodlands, TX