TUBE & PIPE MILL SEMINAR

ROLL-KRAFT®
TUBE, PIPE & ROLL FORMING TOOLING | TRAINING
ON-TIME DELIVERY. FIRST-TIME PERFORMANCE.

Due to popular demand, **Roll-Kraft** is proud to announce another one-day *Tube & Pipe Mill Regional Seminar*. The program will be held again at the Waverly Community Foundation Social Hall in Waverly, NE.

This one-day seminar will be conducted on **Tuesday March 28, 2023**. The seminar starts at 9:00 AM and ends at 4:30 PM.

PROGRAM OUTLINE

This one-day program will again cover the basics of mill integrity, alignment, set up and tooling maintenance as presented in previous presentations.

These “basics” never go away and must always be maintained by everyone that is involved with a tube or pipe mill operation so as to develop a standard for all to follow. The instruction is recommended as a refresher for the seasoned operators, as well as an introduction to the understanding of these topics for the new operators, and related personnel that are new to the industry. Engineering and maintenance departments as well as management are encouraged to also attend.

Everything is presented in a clear understandable format with audience participation encouraged throughout the entire day. This interaction with the attendees, combined with the Power Point Presentation, and seminar guide books, offers one of the most comprehensive and successful ways to train your personnel.

Seminar guidebooks, refreshments for AM and PM breaks and lunch will be provided.

PRESENTATION SPEAKER

Robert A. Sladky, Vice President of Tube Mill Engineering will present the program. Robert was the recipient of the 2003 TPA Industry Education Activities Award in recognition of his outstanding work in the field of tube and roll form production.

AGENDA

Welcome & Program Overview

Mill Integrity and Alignment

A. Tube Mill Manufacturers
Basic facts that are common to all makes of mills

B. Tools Required
Alignment
Setup

C. Integrity and Alignment of Driven Stands
- Identifying style of stands
- Checking:
  - O.D. of shafts
  - Bearings and bearing blocks
  - Bent shafts
  - Parallel of shafts
  - Back shoulder alignment
  - Stand-to-stand alignment

D. Integrity and Alignment of Side Pass Stands
- Identifying style of stands
- Checking:
  - O.D. of shafts
  - Integrity of stands
  - Parallel of shafts and shaft shoulders
  - Proper metal line of side pass stands
  - Proper centering of side pass stands

E. Spacers
- Specific design points
- Proper care
- Proper dimension checks

F. Mill Alignment
- Piano wire
- Precision optics
- Lasers

G. Roll Designs Available
- What are the different kinds of breakdown designs?
- Why are they used?

H. Following Strip Formation Through the Mill
- Breakdown designs
- Fin pass designs
- Seam guide designs
- Weld roll designs
- Sizing designs

I. Reasons for Analyzing Existing Design
- Is the proper strip formation being used?
- Are the side rolls forming properly?
- Are the breakdowns cleared for the maximum gauge?
- Are the fin passes designed for the correct welder?
- Are you running multiple tube sizes with one breakdown section?
- Is the tooling designed for the correct mill configuration?

Setup, Breakdown, and Fin Section

J. Preparing for Setups
- Defining each section
- Entry equipment
- End welding
- Importance of entry table
- Centering of strip to first pass
- Importance of setup charts

K. Setup in Breakdown Section
- Validating pressure settings of the driven passes
- Proper adjustment to gauge
- Setting side pass stands
- Problems and solutions in the breakdown section

L. Setup in Fin Section
- Strip width considerations
- Purpose of fin section
- Proper set up of fin section
- Problems and solutions in the fin section

M. Setup in the Sizing Section
- Defining what a sizing section does on a tube mill
- Importance of following a setup chart
- Problems and solutions in the sizing section

N. RPM of Drives
- Identifying number of motor drives
- Importance of controlling RPMs between drives
- Formula to calculate RPMs
- Instruments used

COPRA FEA RF Software “FEA” Finite Element

O. Virtual Tube and Pipe Profiles
- Roll-Kraft was the first licensed user in the United States
- What does “FEA” do?
- How “FEA” calculates reaction forces
- Who uses “FEA”?
- Summary of benefits using “FEA” in roll tooling design

Tooling Maintenance Programs

P. Tooling Maintenance
- Tooling inventory
- Creating a file for each roll set
- Creating an inspection program
- Documenting footage, rim clearances
- Knowing when to send tooling in for rework

Driving Directions to Waverly Community Foundation Social Hall

- From Interstate 80 (I-80) take the Waverly exit #409. From the exit, turn right, (NE on Highway 6) and go approximately three (3) miles to Waverly.
- Take a LEFT at the stop light (141st Street).
- Continue North on 141st street and as you head out of town, the Waverly Community Foundation Social Hall will be the large white building on your right. (11120 North 141st Street).

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