

Asma LLC presents:
The Precision Sheet Metal Chronicle

www.asmachronicle.com/chronicle.pdf

The worlds first on-line magazine dedicated to the precision sheet metal trade.

Published since 1997 this award winning magazine is published free the first of each month.

All issues are cross referenced and indexed allowing you greater access to the information contained in each issue!

For more information contact:
Asma LLC

www.asmachronicle.com

Punching, Lasers,
and Press Brakes.
It's all there!

Asma LLC
2952 Doaks Ferry Rd. NW
Salem, Oregon 97304

503.399.7514
steve@asmachronicle.com

This program is endorsed by your main source of the sheet metal industry

www.thefabricator.com



About the instructor

*Steven D. Benson, President
Asma, LLC
Salem, Oregon*

With more than 30 years' experience in the sheet metal industry, Steve Benson is president of ASMA, a supplier of software, textbooks, and outstanding training for press brake operators and engineers.

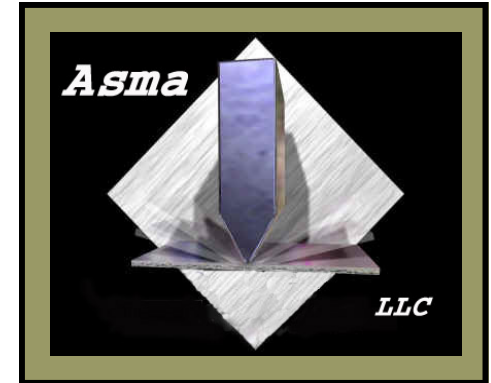
He has authored seven press brake related texts, programmed related software, published 61 articles in North America and Europe and the currently writes and publishes

“The Precision Sheet Metal Chronicle.”
Asma,LLC offers:

- On-line and/or in-house consulting
- In-house press brake training
- In-house punch and laser training
- Textbooks, Software

www.asmachronicle.com

Steve serves as
Chairman of FMA's
Precision Sheet Metal Technology Council.



Advanced Sheet Metal Applications

Provider of:

World Class Press Brake training,
Punch press and Laser training
Textbooks, Software

Publisher of:

**The
Precision
Sheet Metal Chronicle**

Getting the most from your Press Brakes?

Getting the most from your press brakes requires a thorough understanding of the math behind sheet metal fabricating.

The Precision Press Brake Operation Workshop

Explains how to build a skill set that will allow your business to compete in today's tougher market!

Whether you operate a press brake or design bent parts, you can gain more knowledge and applications at this information-packed workshop .

Learn the math behind sheet metal fabricating

Bring your calculator!

Basic math, algebra, and trigonometry are presented as a calculator operations course. You'll learn the mathematics behind precision sheet metalworking, and how to:

- calculate bend functions, including bend deduction, outside setback, and bend allowance.
- relate bend functions to bend deduction charts and flat pattern layouts.
- find the triangles on blueprints and figure the missing values.
- compare precise calculation with "rule of thumb" methods.
- Implementing lean manufacturing.

Who should attend?

These courses can be geared toward new and minimally skilled press brake, punch and lasers operators as well as anyone who needs to know about press brakes and bending or cutting sheet metal: engineers, designers, and programmers. Get your entire team on the same page so you can create workable designs and superior products.



"Great for new operators, supervisors and engineers. Bring an open mind and your questions".

*-Marty Bever,
Greenheck Fan*

"Be open to new knowledge, not relying on earlier tribal knowledge".

-Ted Krauss, M&B Mfg.

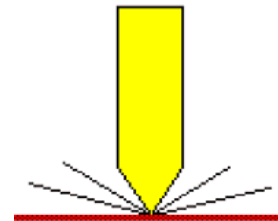


"Learned from it even though I'm experienced!"

*-Robert McGlaughlin
Neilsen Mfg. Inc.*

Learn about . . .

- Press brakes, their operation, and related terminology.
- Press brake controls and programming.
- How different forming methods (air, bottom bending, and coining) relate to bend types (sharp, radius, and profound radius).
- The 20 percent rule of air forming.
- When sharp bends are required, when they're detrimental.
- Proper V-die and punch selection and installation.
- Observing press brake and tooling limits to avoid costly damage.
- The effects of springback on parts, design, and tool selection.
- Proper use of common hand tools.
 - Press brake safety.



Plus advanced practices:

- Using single die sets over multiple material thicknesses.
- Designing parts for single die sets.
 - Using specialty tooling.

Punch and Laser Training a specialty

Make the entire system work for you!