

TECHNOLOGY FOR THE WELDER'S WORLD.



Advanced Fume Workshop: Breaking Down Fume Torches

Welcome!



www.binzel-abicor.com

Advanced Fume Workshop: Breaking Down Fume Torches

Panelist

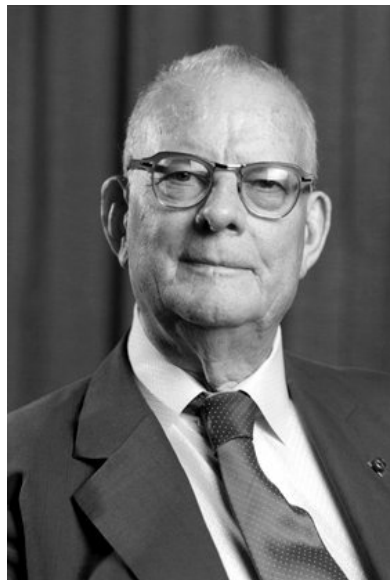


Etienne Blouin,
Director of Environmental
Health Systems

Advanced Fume Workshop: Breaking Down Fume Torches

Introduction

THE “ART” OF SMOKE EXTRACTION



“Without data
you’re just
another person
with an opinion.”

- W. Edwards Deming,
Data Scientist



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Smoke in the Workplace

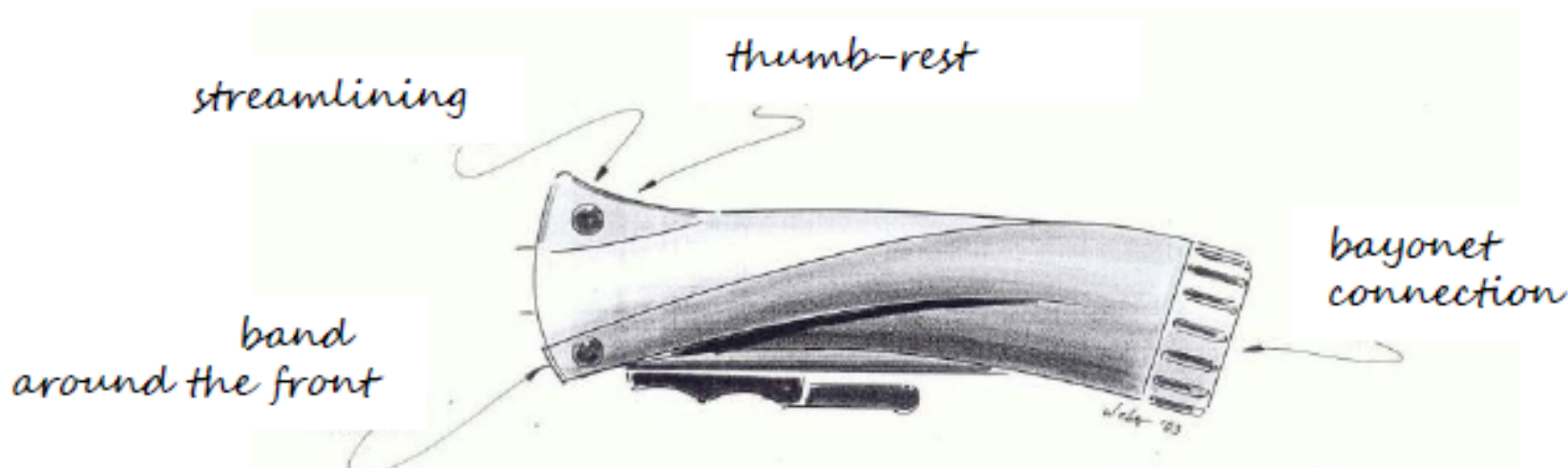
Short Term Effects	Long Term Effects
Skins & Eye Irritation	Pulmonary Chronic Disease
Asthma	Nervous System Damage
Fume Fever	Kidney Damage
Poisoning	Cancer



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Science & Evolution

- **1974:** Abicor Binzel creates first generation of fume torches



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Ergonomics & Performance



Sitting measuring position



Standing measuring position



Position of electrodes and



EMG-data



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Types of Fume Torches



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Welding Fume



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Front End



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Middle Section



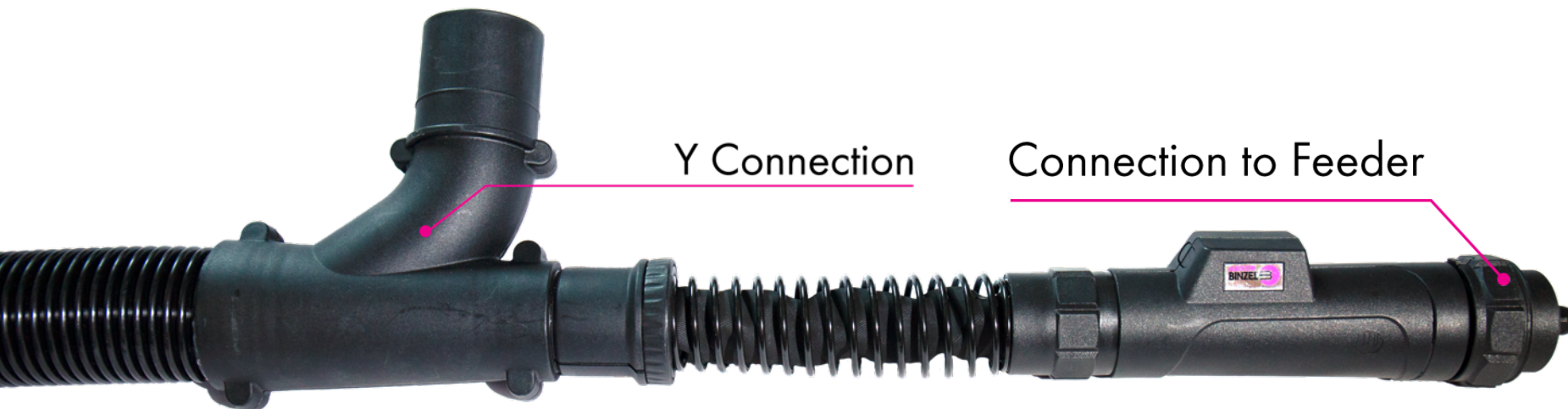
- Protective cable covers/sleeves can prevent holes and premature wear to your hose.



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Back End

- Y-Connection for better flow through the torch



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Torch Rating & Duty Cycle

Rating	Air-Cooled		Water-Cooled	
	CO ₂	Mixed Gases	CO ₂	Mixed Gases
	250A - 60% DC 300A - 60% DC	220A - 60% DC 270A - 60% DC	500A - 100% DC	450A - 100% DC

- Further de-rated by 35% for pulsed arc

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Positioning

- Welder position & torch angle play a key role in optimizing fume capture.



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Shielding Gas

- Ensure you have proper shielding gas pressure



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Vacuum

- HVAC-type system needed
- Required operating pressure is between 50 in/H₂O and 90 in/H₂O



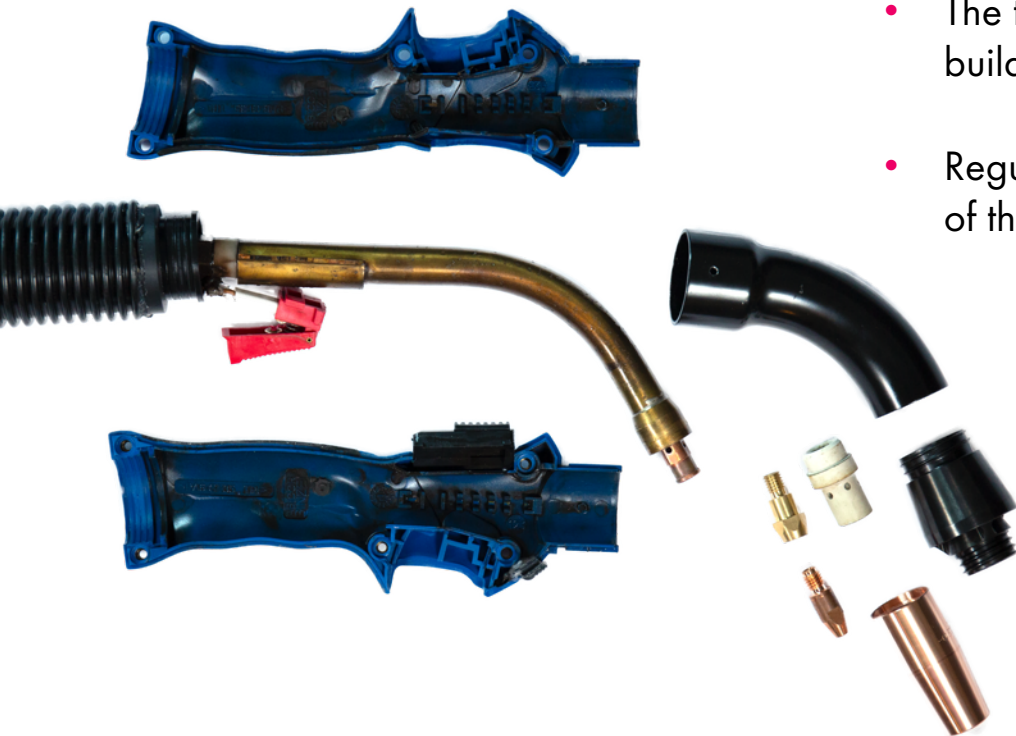
Advanced Fume Workshop: Breaking Down Fume Torches Training

- Proper training will ensure effective fume capture while welding



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Maintenance



- The tight spaces within the handle are prone to debris build-up
- Regularly disassemble your fume torch to clean inside of the handle and clear out any debris.

Advanced Fume Workshop: Breaking Down Fume Torches Spatter

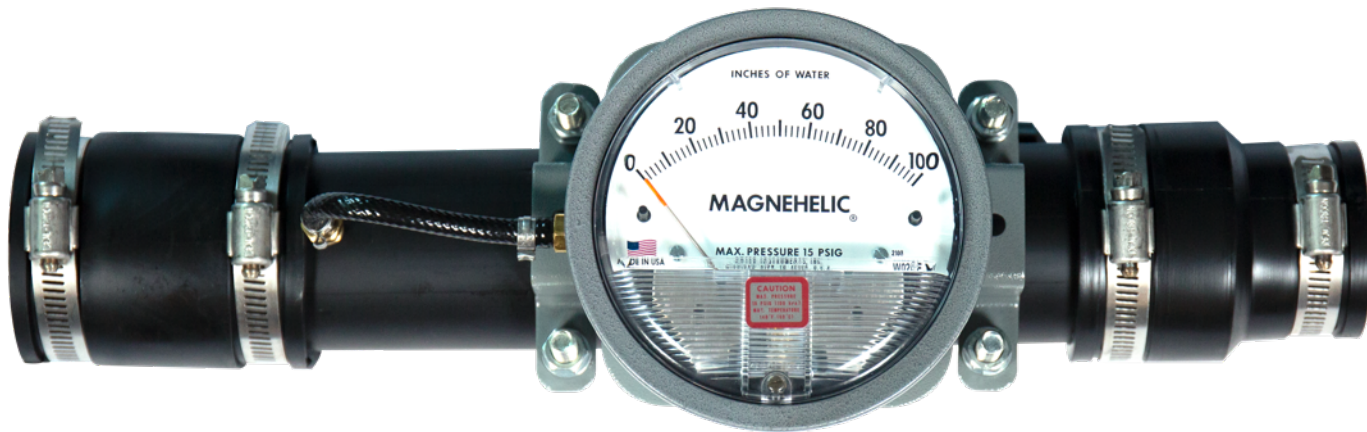
- Spatter can build up on your nozzle and fume shroud.
- It is important to keep these orifices free of debris and spatter to ensure proper flow through the torch.
- Use of anti-spatter can help in most cases to prevent build up



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Vacuum Maintenance

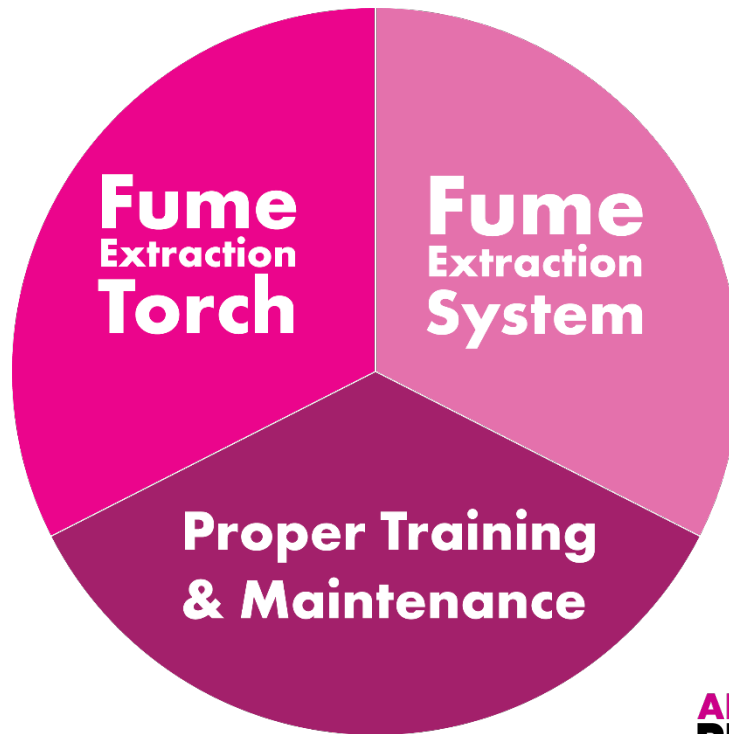
- Testing your vacuum pressure at different points in the system can help you narrow down possible issues.



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More Than Just the Torch

- Your torch, vacuum system, and proper positioning all factor into the effectiveness of fume extraction in your operation.



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What Changes?

- What changes in your welding operation to accommodate fume extraction?



Contact Us

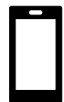
We'd Love to Hear From You



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