



# Electrofusion Joint Integrity Solutions.



**CalderSafe<sup>®</sup>**  
Data Acquisition for Electrofusion Welding

# Why do electrofusion joints fail?






## Why do electrofusion joints fail?

- **Lack of preparation**
- **Not using pipe clamps**
- **Contamination**
- **Out of round pipe**
- **Failure to observe cooling cycle**
- **Incorrect pipe scraping and peeling**

# How can we resolve the problems?



## How can we resolve the problems?

- **Training and education**
- **Follow correct procedures**
- **Quality control**
- **Re-round the pipe before jointing**
- **Pipe preparation – scraping & peeling**
- **Use clamps & positioning kits**
- **Use a calibrated welder**
- **Complete the cooling cycle**

# Successful Weld Cycle



# Importance of pipe surface preparation + clamping.



## What's gone wrong?

- **Incorrect alignment**
- **Clamps not used**





## What's gone wrong?

- Contamination
- Hand scraped - Insufficient



## What's gone wrong?

- Contamination
- Pipe not scraped



# What's gone wrong?

- Pipe damage





## What's gone wrong?

- Pipe tension on joint
  - Clamps not used
- Molten plastic forced out of joint area



## What's gone wrong?

- Pipe not fully inserted – Clamps not used





## What's gone wrong?

- No pipe preparation





## What's gone wrong?

- No pipe preparation
- Water contamination



## What's gone wrong?

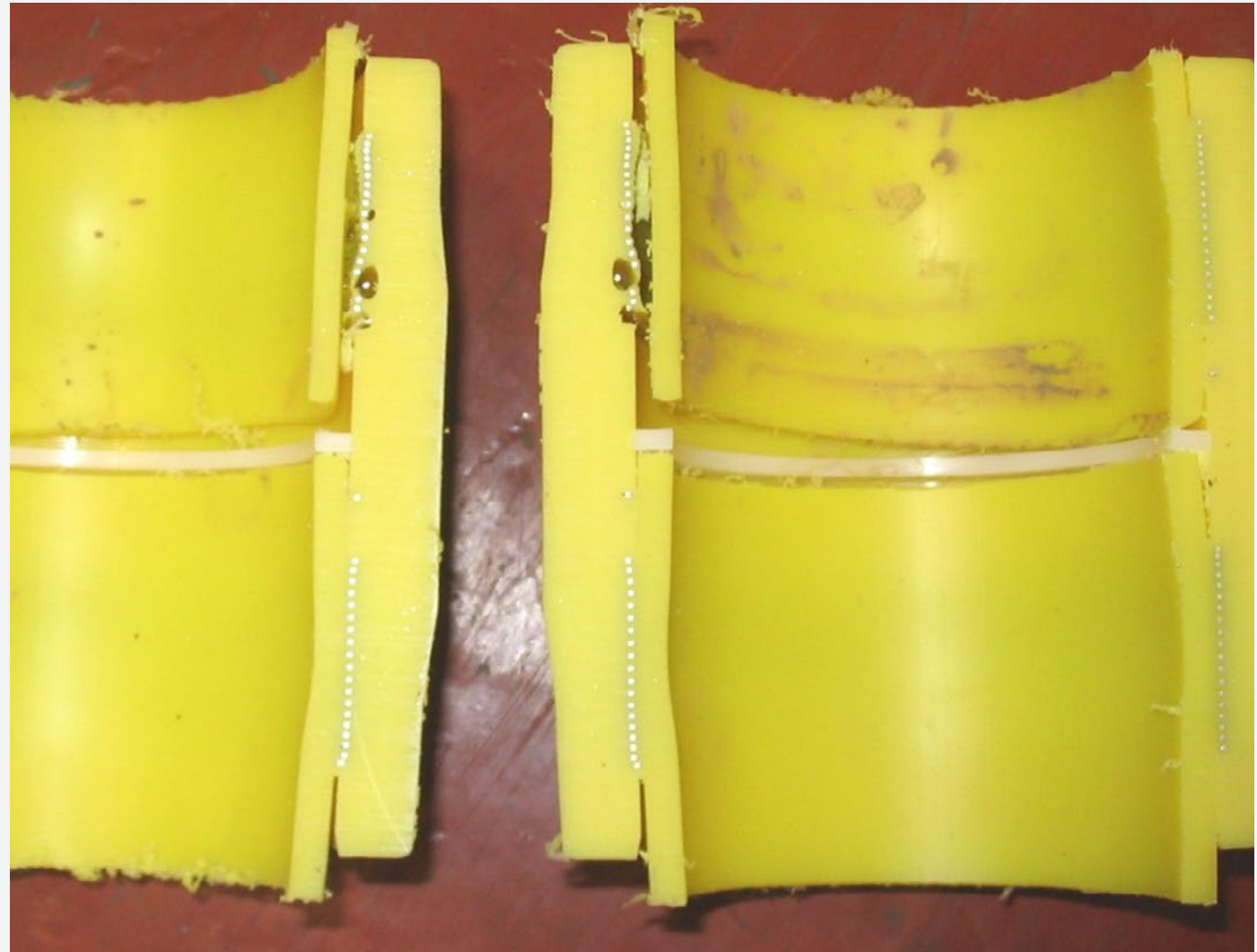
- Contamination
- Damaged fitting





## What's gone wrong?

- Contamination

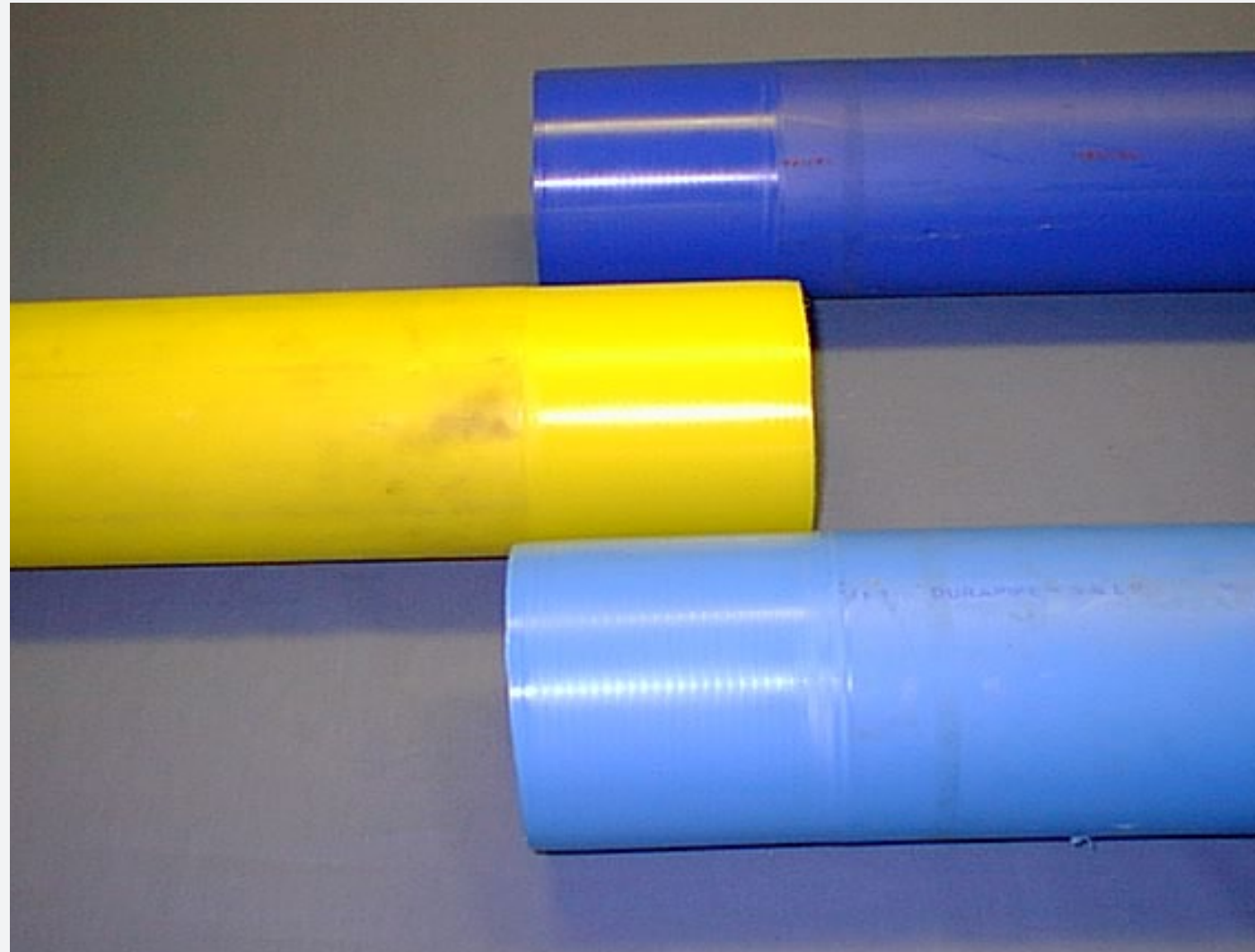




# Introducing best practices

## Eliminating failures

- Prepared pipe using Calder rotary scraping tools



## Eliminating failures

- Use the right tools to make the right connection





## Eliminating failures

- Use the right tools in all environments





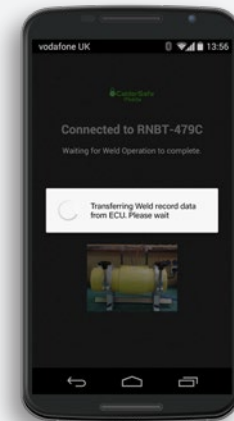
## Eliminating failures

- Use Caldertech's CalderSafe Quality Control System

CalderSafe®  
Data Acquisition for Electrofusion Welding



Welding data is transferred to smartphone device after completion via Bluetooth.





# Contact Us

For more information contact:  
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