

The background is a collage of industrial images: blue electric motors, large metal gears, and a worker in a hard hat and safety vest. A white geometric grid is overlaid on the collage.

**FLUKE®**

Reliability

# **Avoiding Alignment Errors: Improving Accuracy & Efficiency**

Best Practices Webinar Series

# Meet the Speaker



## Jay Morel

Technical Manager  
Star-Tech Instrument Systems, Inc.

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- Over 40 years in the maintenance and reliability field, the last 28 of those years with Star-Tech.
- Certifications include Vibration Analysis II, Thermography I, Ultrasound I and Electrical Circuit Analysis.
- Star-Tech has been the only authorized representative for Fluke Reliability's Prüftechnik line of products in Louisiana, Arkansas, Mississippi, and Alabama for over 35 years.



# Pre-Alignment



## Pre-Alignment: Following a Good Procedure

1. **Safety first:** always isolate and lock out the equipment to be worked on.
2. **Visually inspect** the base, grout, and the feet of the machine for any noticeable defects.
3. **Loosen and tighten the bolts and jacking bolts** if available to ensure proper functionality.
4. **Clean around and under** the feet of the machine.
5. **Inspect** for any rusty, painted or bent shims and replace.
6. **With all the bolts loose, check for any gaps** under the feet and use feeler gauges to fill them.

If you would like a copy of our alignment checklist, you can email me [jay@startechla.com](mailto:jay@startechla.com) and I will be happy to send you one.

# Entering Dimensions

# Some Dimensions are More Important!



## Short Flex Couplings

Sensor to coupling center should be measured from the groove or mark on the top of the sensor to the center of the flexible element in the coupling.



## Spacer and Cardan Couplings

Sensor to coupling center should be measured from the groove or mark on the top of the sensor to the center of the flexible element in the coupling that is closest to the sensor.

**These critical dimensions are the only ones that can change whether you are in or out of tolerance and should be accurate within 1/8".**

# Thermal Growth and Target Specs



**Thermal Growth** is entered at inboard and outboard shim planes of a machine. It can be calculated by our instruments.

**Targets** are entered at the coupling and usually are given to the user.

## POLL QUESTION No. 1



**What is the most used method of shaft alignment at your facility?**

**(Click only one answer)**

- Straight Edge/Feeler Gauges
- Dial Indicators
- Pruftechnik/Fluke Laser Alignment System
- Other Laser Alignment System



# Taking Measurements

# Each Measurement Mode has a Purpose



# Measurement Quality Matters!



# How Does That Tool Measure?



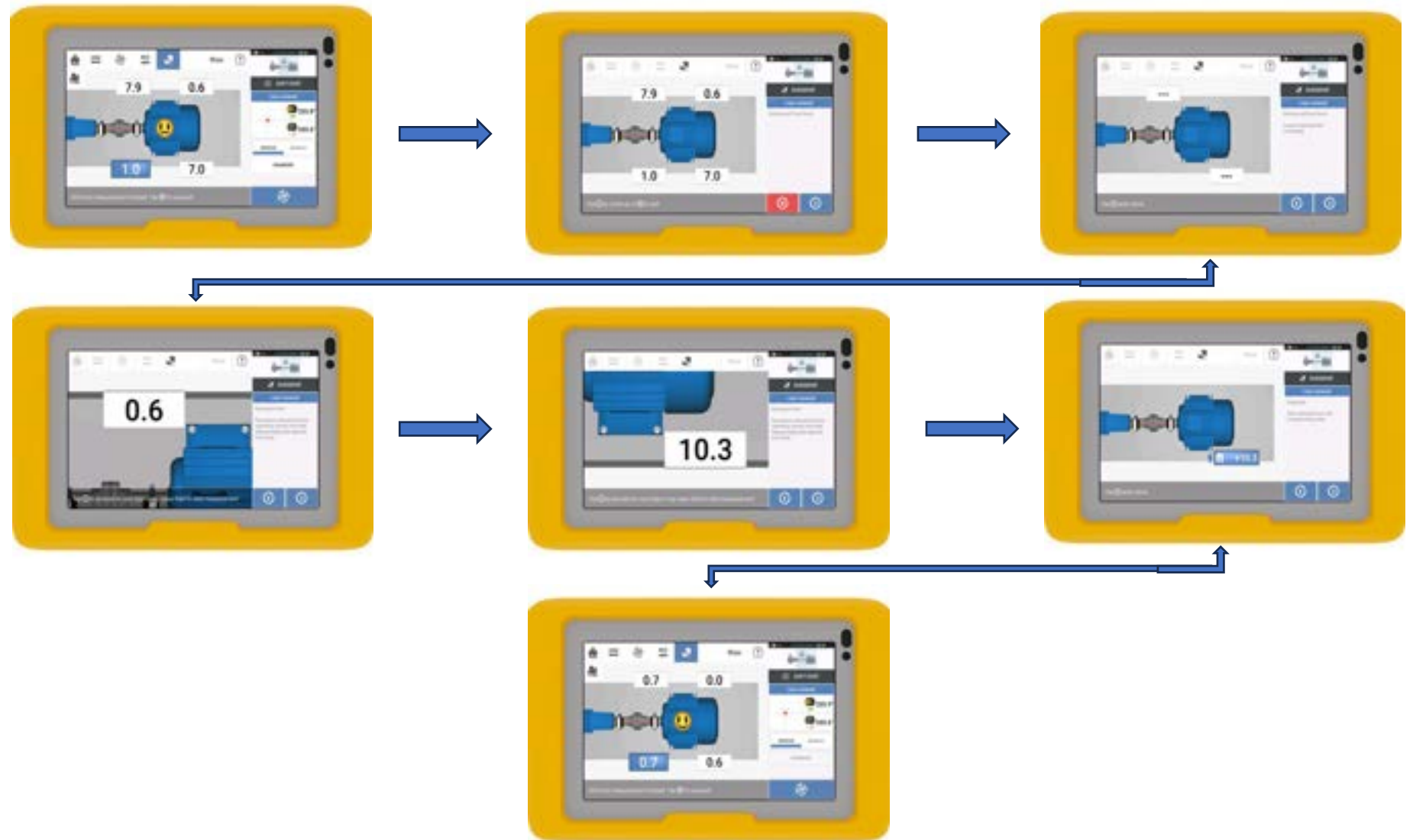


# What if I Can't Achieve Repeatability?



# Softfoot Issues

# Softfoot Wizard



## POLL QUESTION No. 2



**How often do you perform softfoot checks?**

**(Click only one answer)**

- On Every Alignment
- Only if I See a Problem During The Alignment
- Never
- What is Softfoot?

# Making Corrections



# Result Views & Live Move



When making live corrections, it doesn't matter what position the heads are in around the coupling. It's best to choose a position where they are out of the way of your hands and arms as you loosen and tighten bolts.

Take care not to allow the shafts to turn while making a live correction. If you do, it's best to tighten all the bolts and go back to the measurement screen to remeasure.



# Final Measurement



Once you have achieved alignment within the specified tolerance, you must return to the Measurement screen to verify the results.

After verifying the results are within the tolerance specified, you can then save the file. You can then generate a PDF report or, if your device allows, even email the report directly from the device.



# Ace Your Maintenance Game: Reliability Hits the Road

Join us for a complimentary day of hands-on training from leading industry experts

## Learn more about:

- ✓ Shaft alignment
- ✓ Avoiding alignment errors
- ✓ Hands-on alignment training



SCAN TO RSVP



Thurs., Nov. 13  
8 a.m. - 4 p.m.



L'Auberge Hotel &  
Casino, Baton Rouge

**STARTECH**  
INSTRUMENT SYSTEMS, INC.

# QUESTIONS?



Thank you!

**Jay Morel**

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**THANK YOU!**