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EXCHANGE
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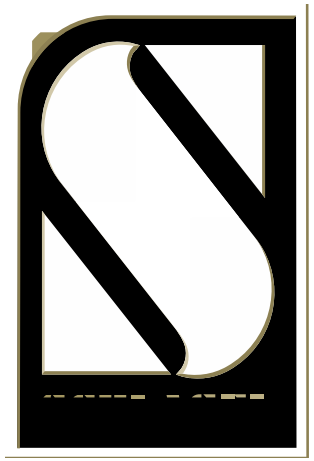

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Idea Exchange

2022

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What's New!

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Sound Inventory Management

Near Perfect Inventory Data from AGI

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Robin Walters

AGI DIGITAL

Director of Marketing - SureTrack

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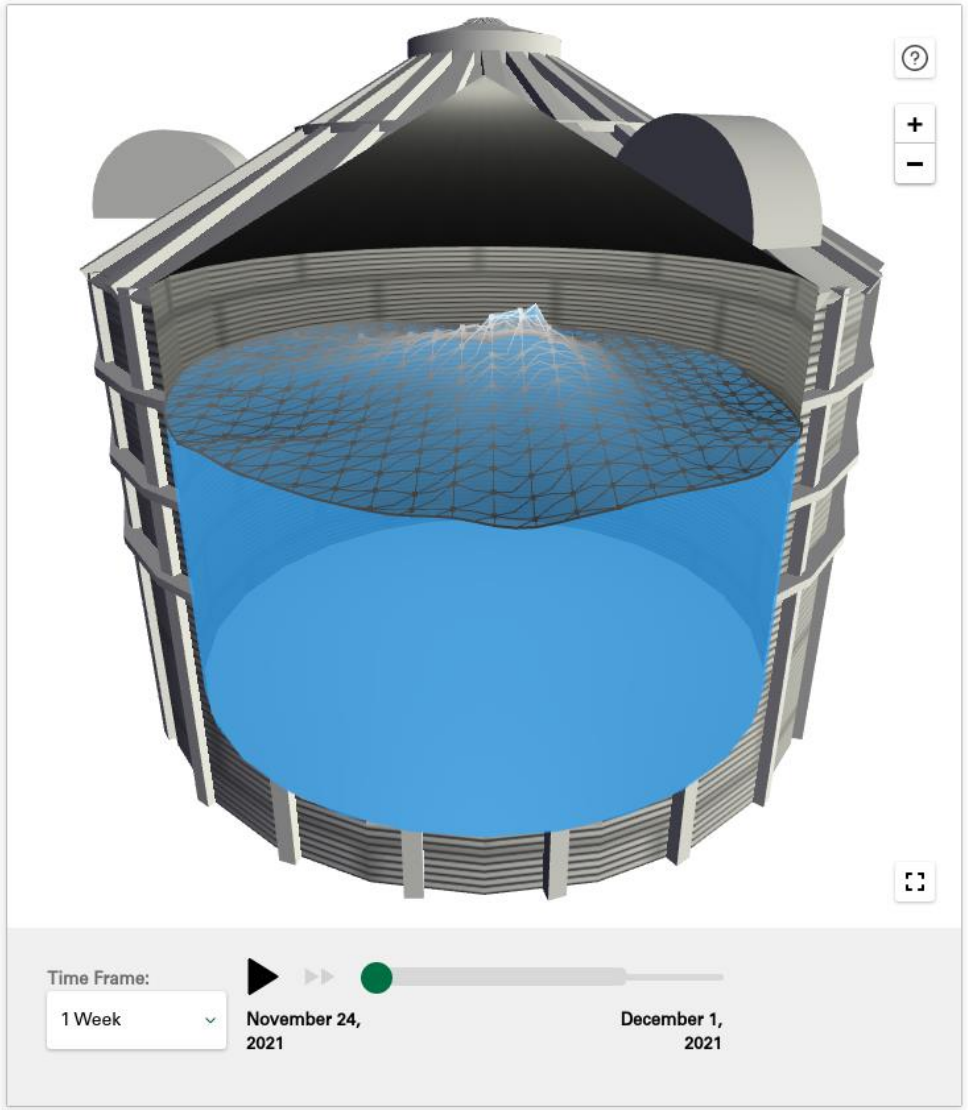

Data Integrity

- 99% accurate inventory readings
- Designed for harsh environments
- Fast, easy install
- Self-contained unit
- ERP Compatible
- Multi-user access

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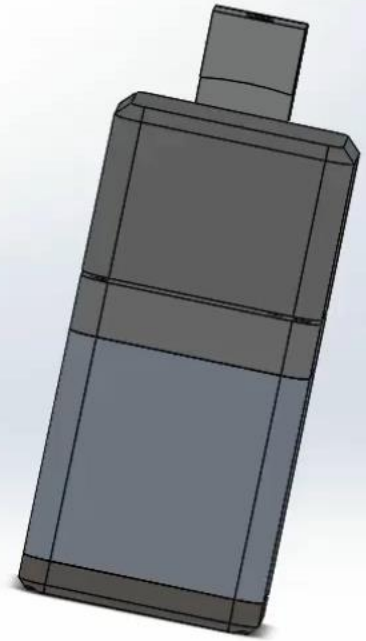

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Inventory Management Options

Stand-Alone

- Simple install
- Low cost & upkeep
- Accurate inventory measurements
- Easy reporting
- Mobile access

Bundle with Monitoring

- Complete data and visibility
- Increased accuracy
- Automation options
- Preserve grain quality
- Avoid shrink

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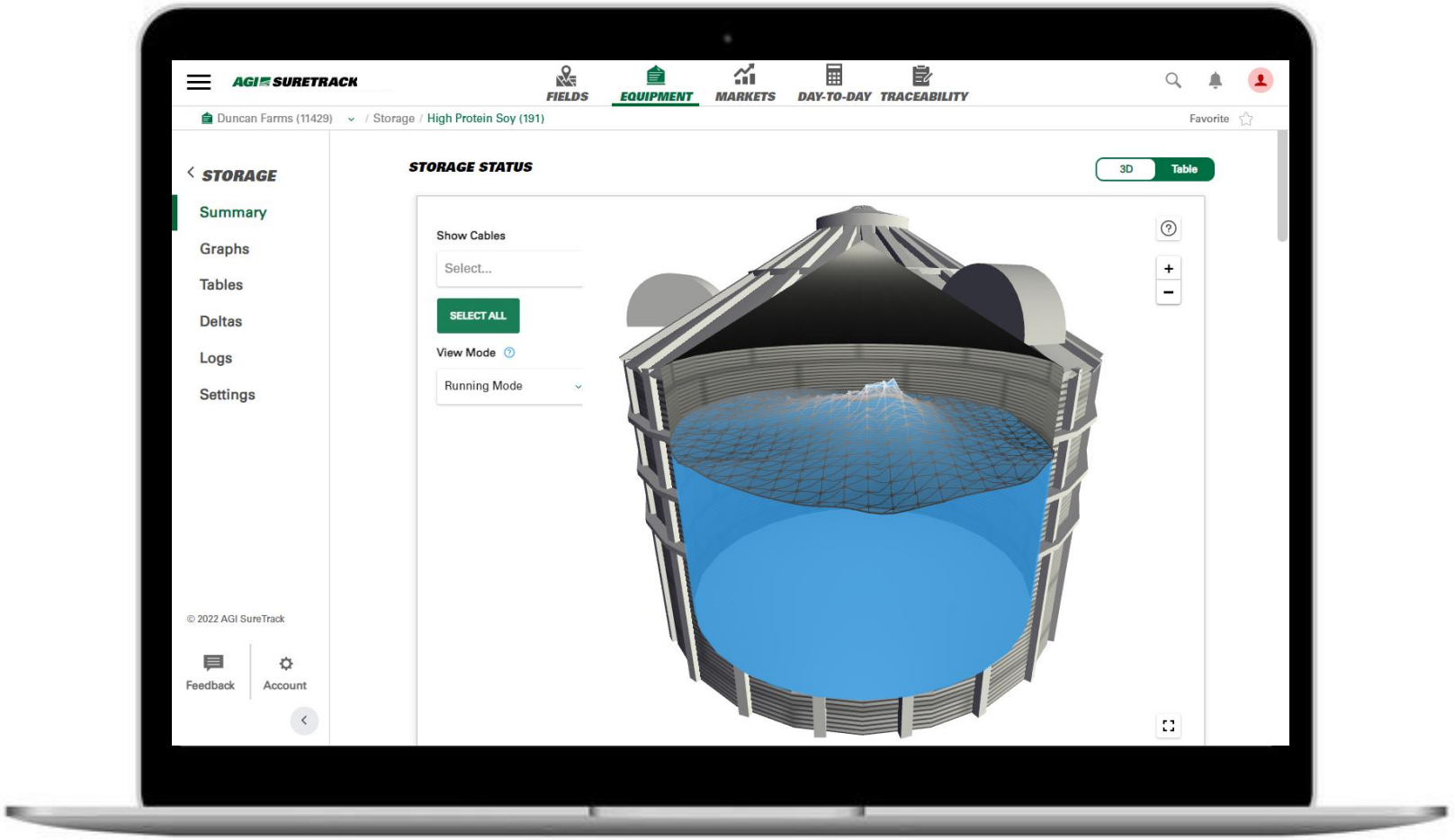
Software Integration

- Ease of Use
- Multi-login Access
- Automate Alerts
- Multi-Facility Data
- API Integration



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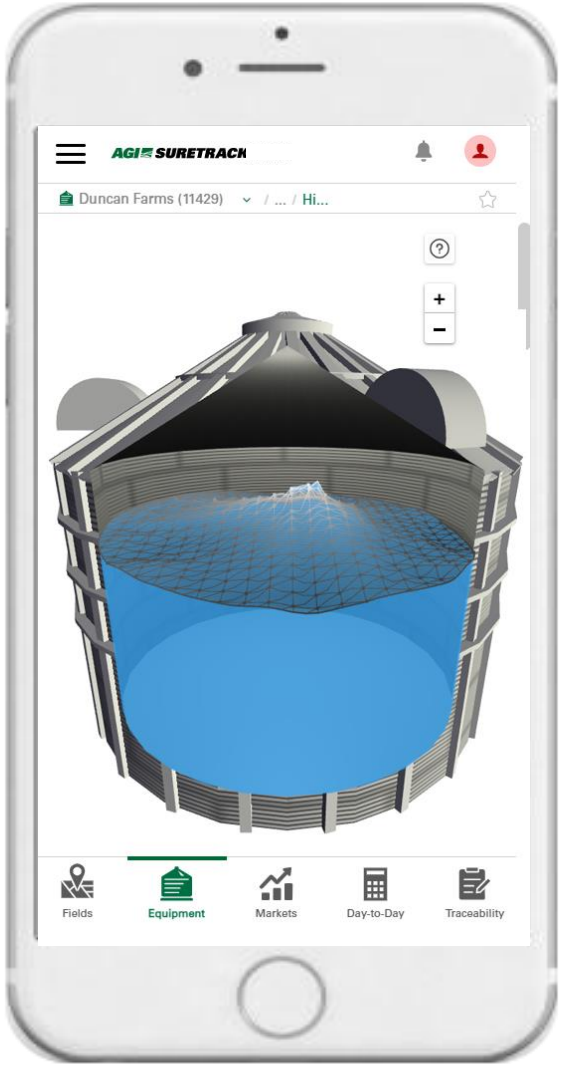
24/7 Access

- Anywhere, Anytime
- Mobile responsive
- Customize Alerts: Text/Email



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Next Steps…

Visit AGI at BOOTH #904

- Opt-in Lidar Beta Site Program
- CMC HazMon
- AGI Storage and BinManager®
- AGI Material Handling

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CAS Platinum Plus Grain Dryer Controller

Custom Agri Systems Inc

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Wes Peterson

Custom Agri Systems Inc

Product Development / Sales

Automation

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Platinum +
Dryer Controller

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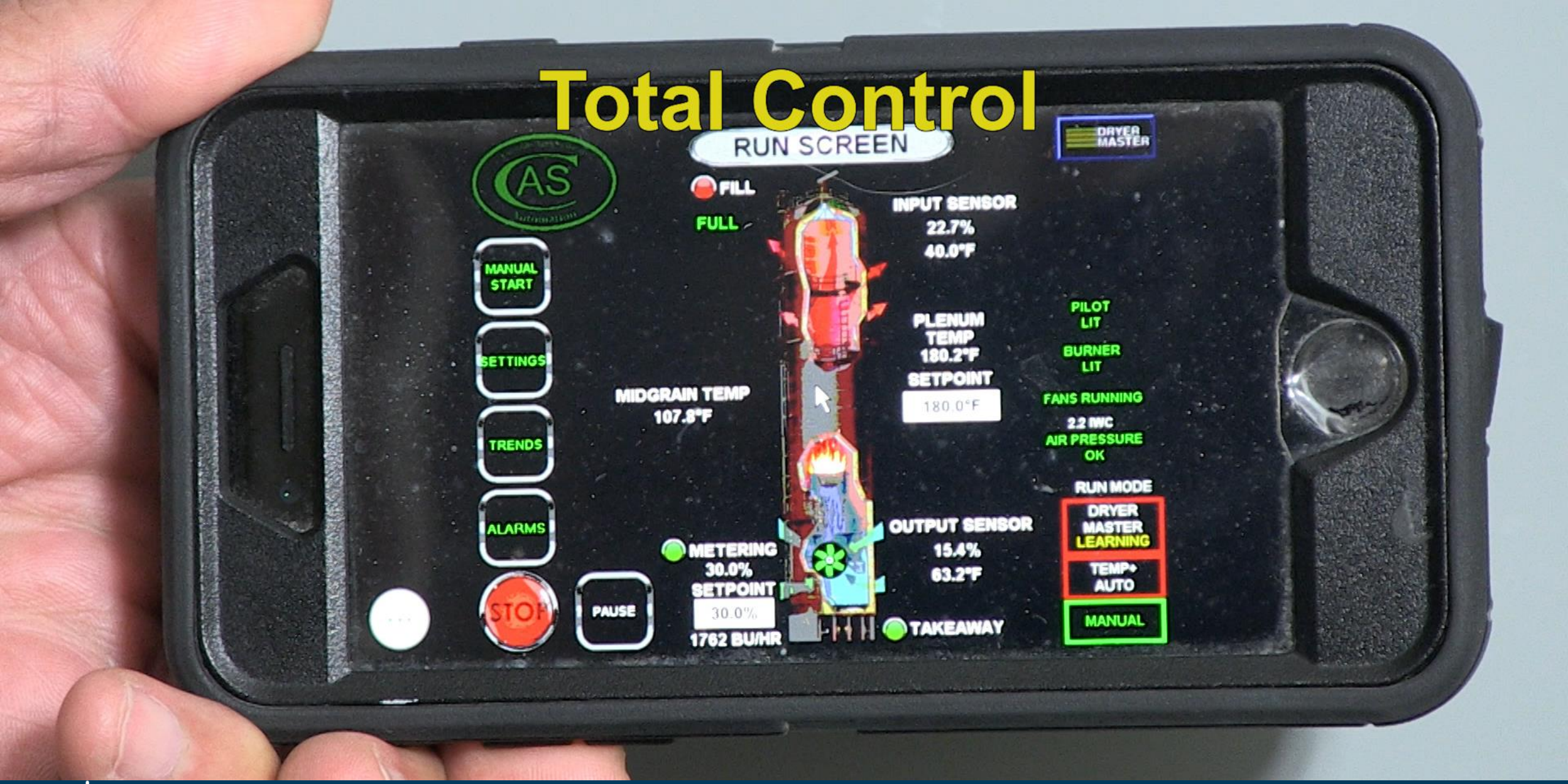
Total Control



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Dryer Controller & Information Center

Settings About

Automation

DRYER HMI (Disconnect)

TRENDS

[NO ACTIVE ALARMS]

A51: Details

SCREEN HELP

CASLink

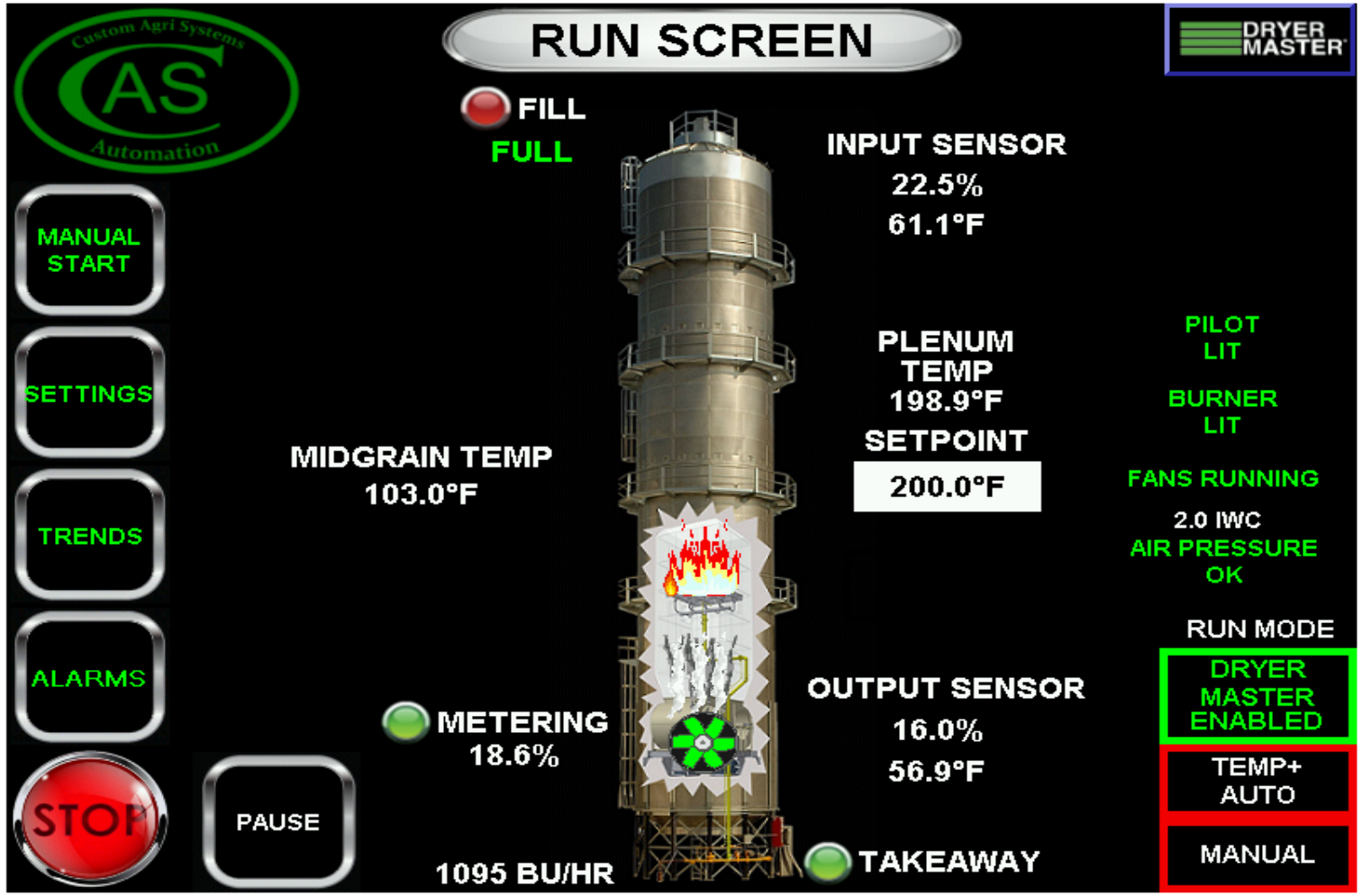
Smith Creek, LLC

Wilamsport,IN

4/2/2021 10:43:32 AM

29°F H:51%

BCT4700



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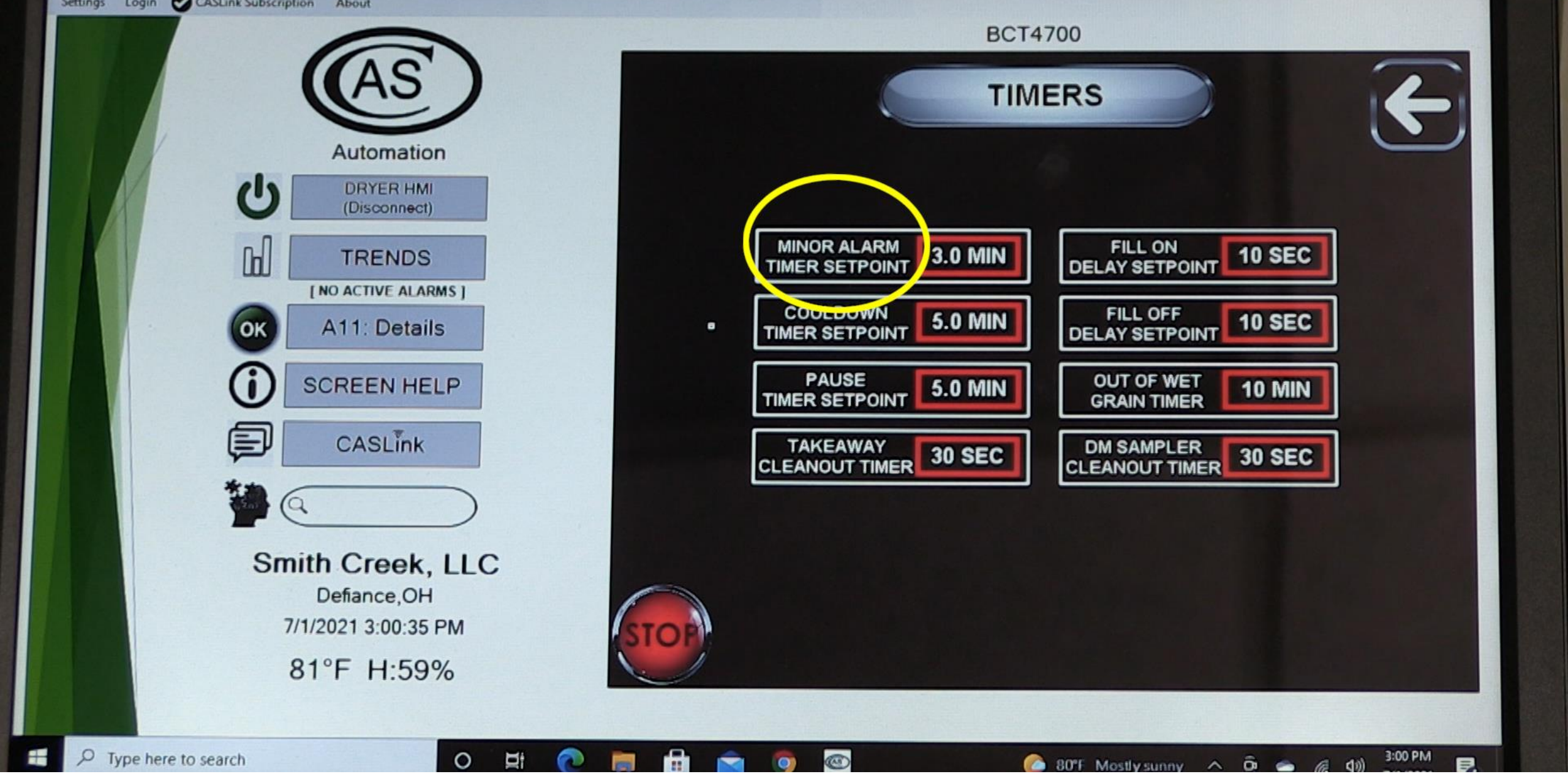

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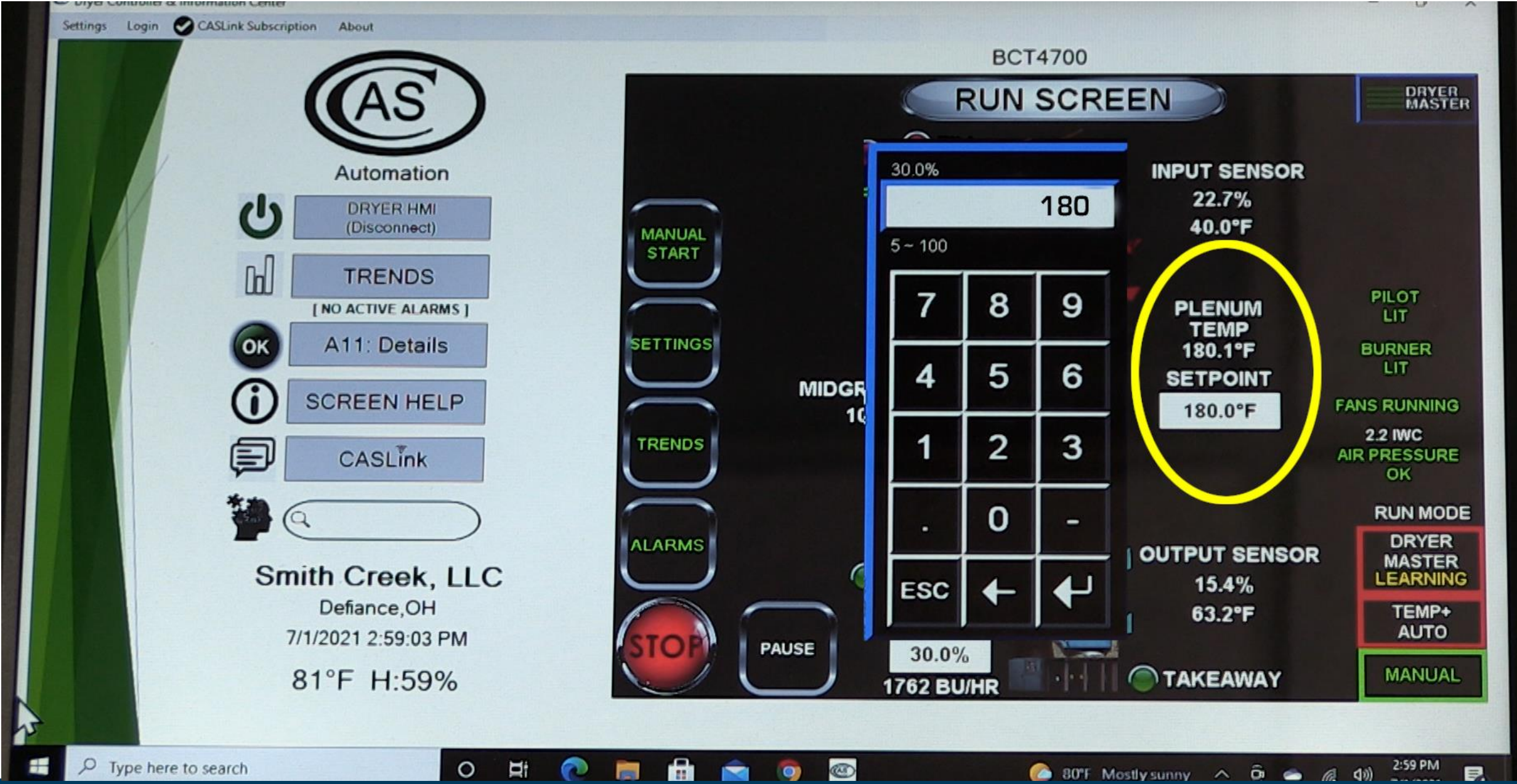

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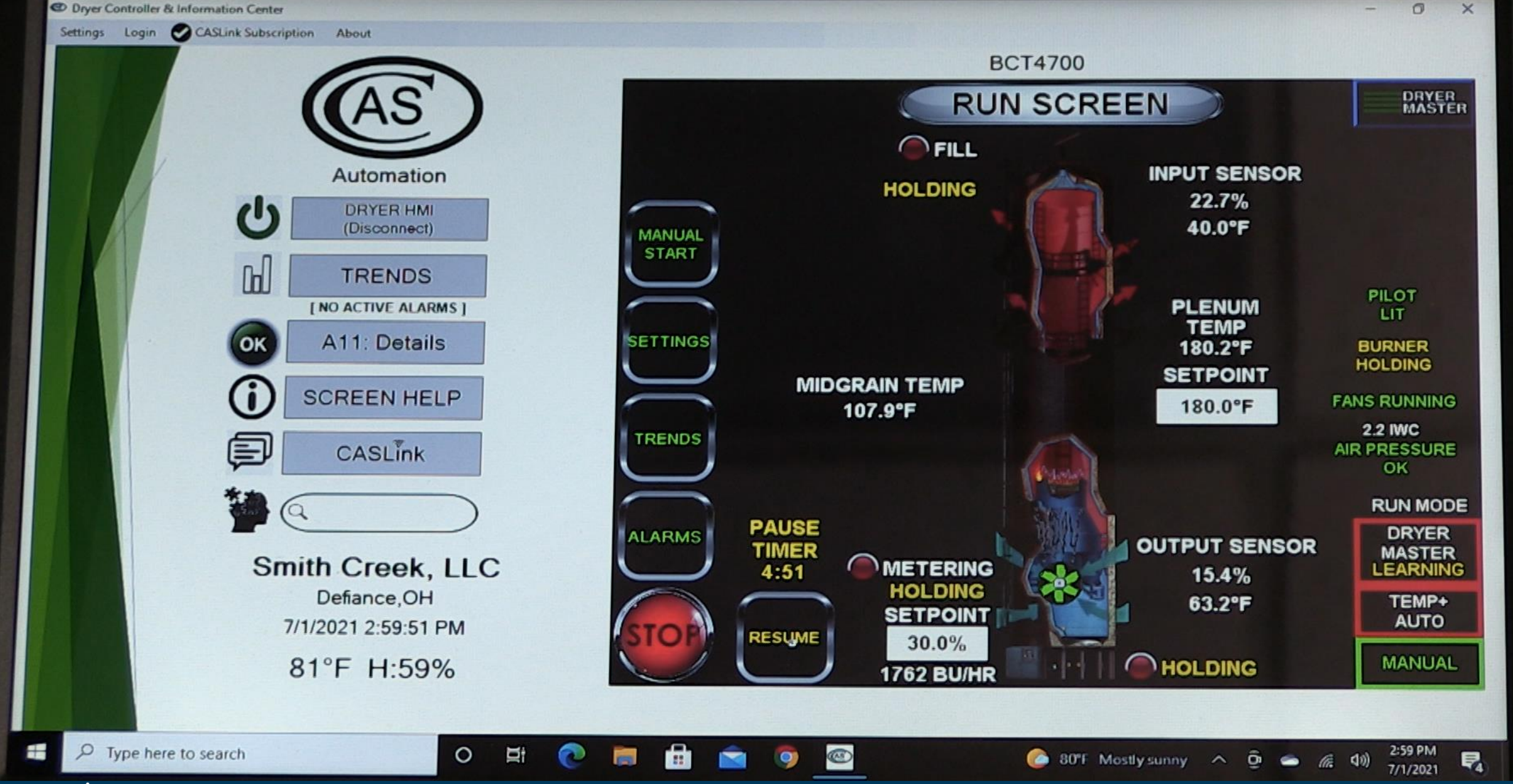

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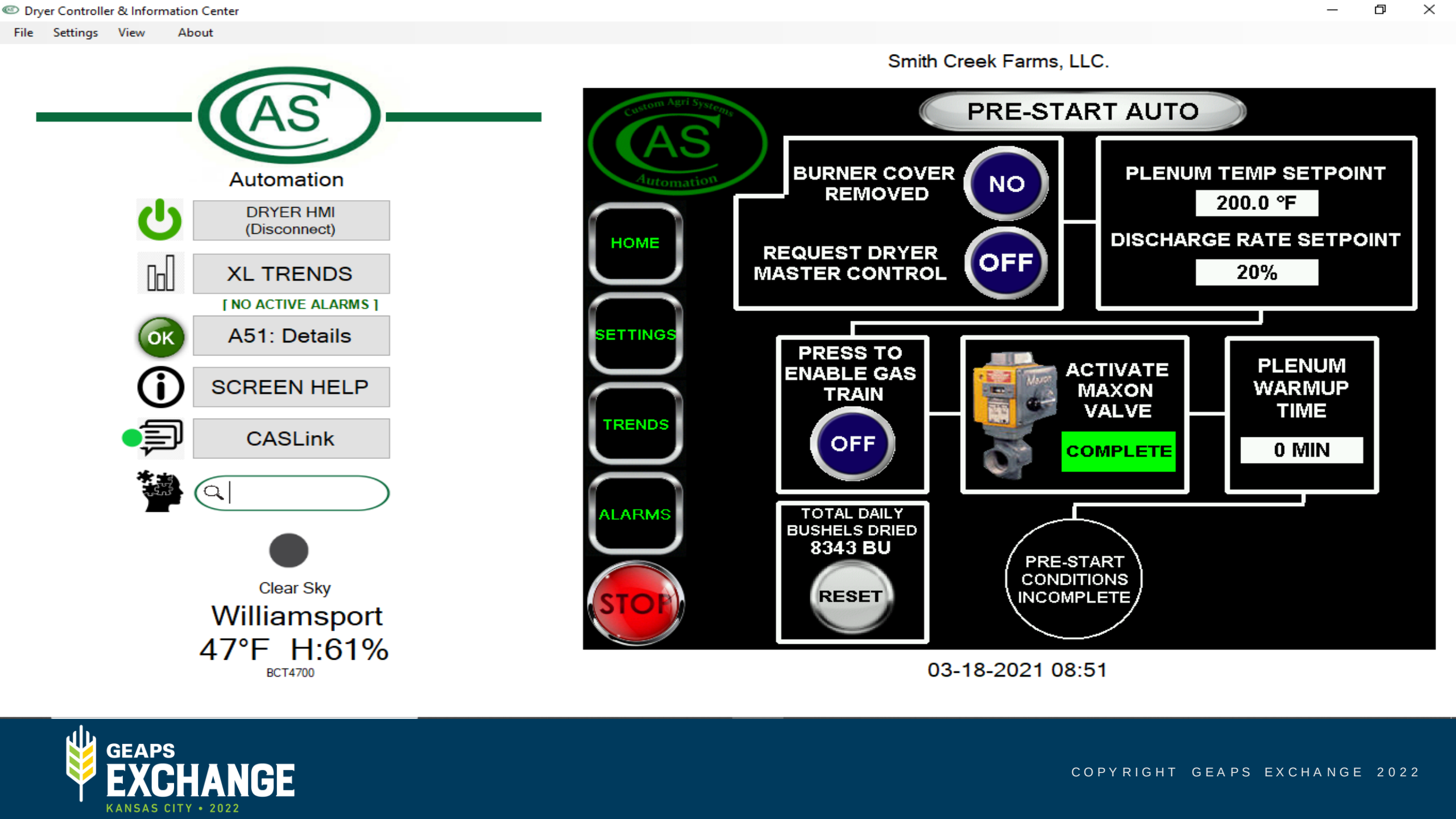

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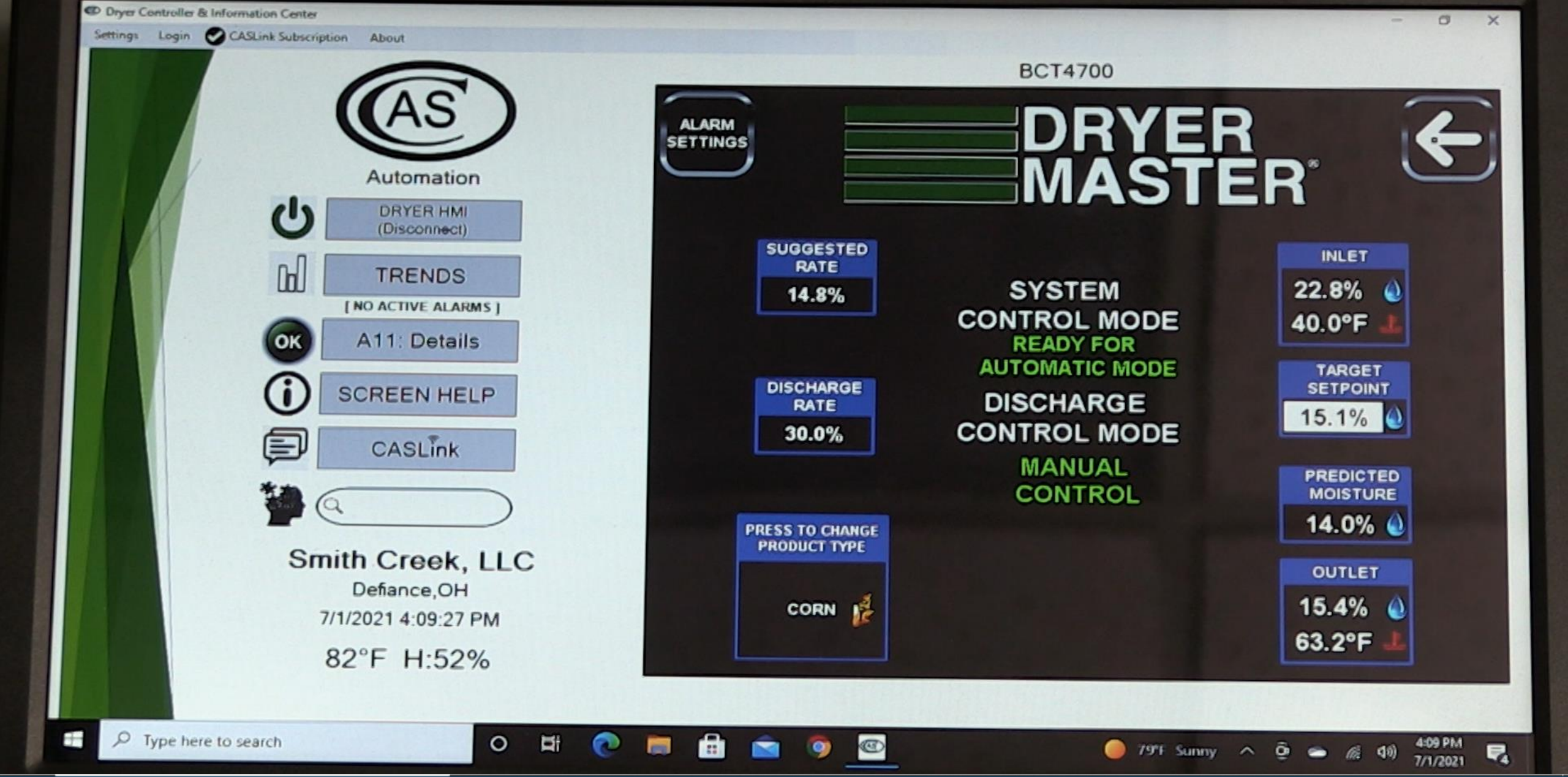

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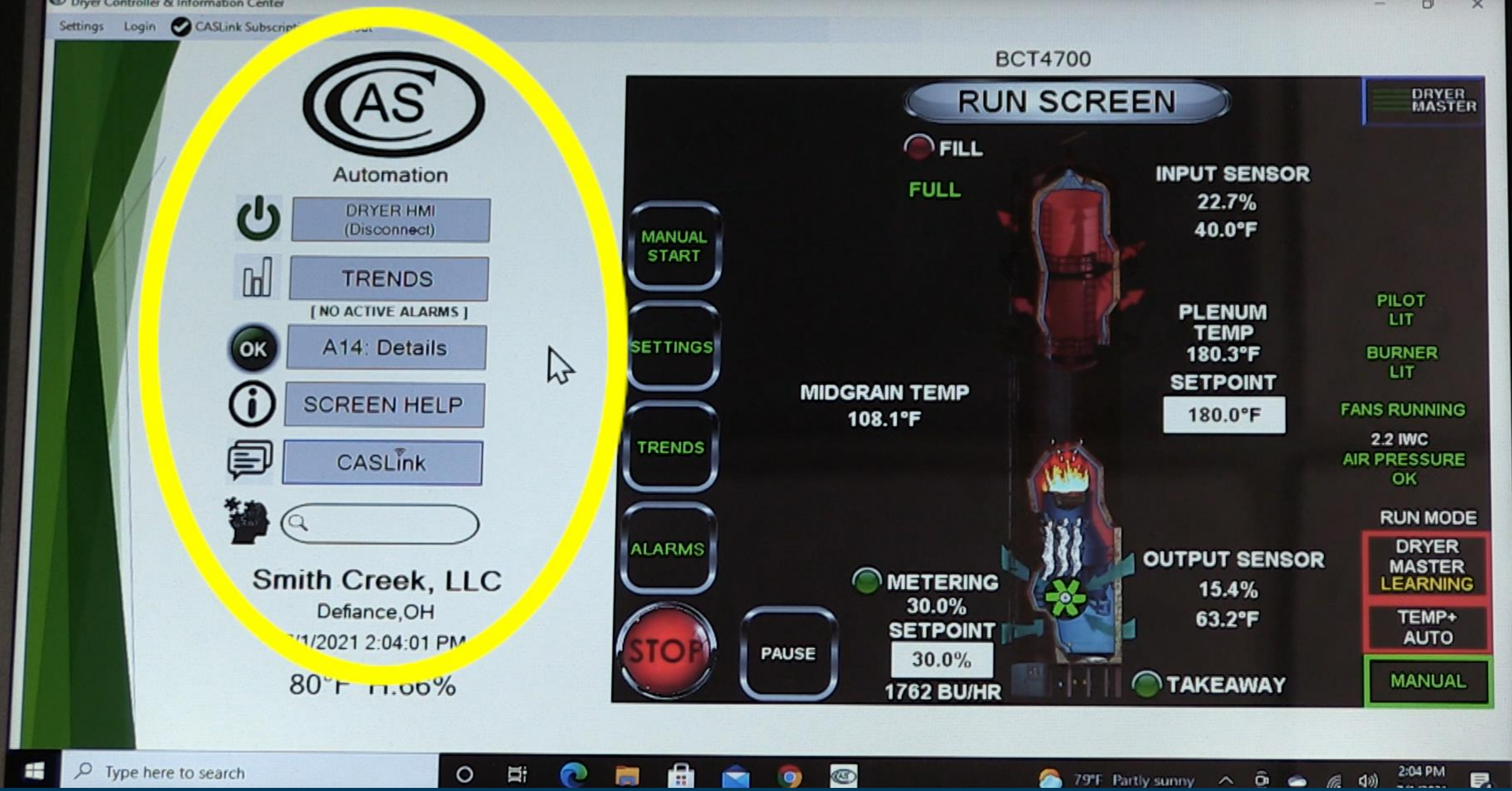

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Dryer Controller & Information Center

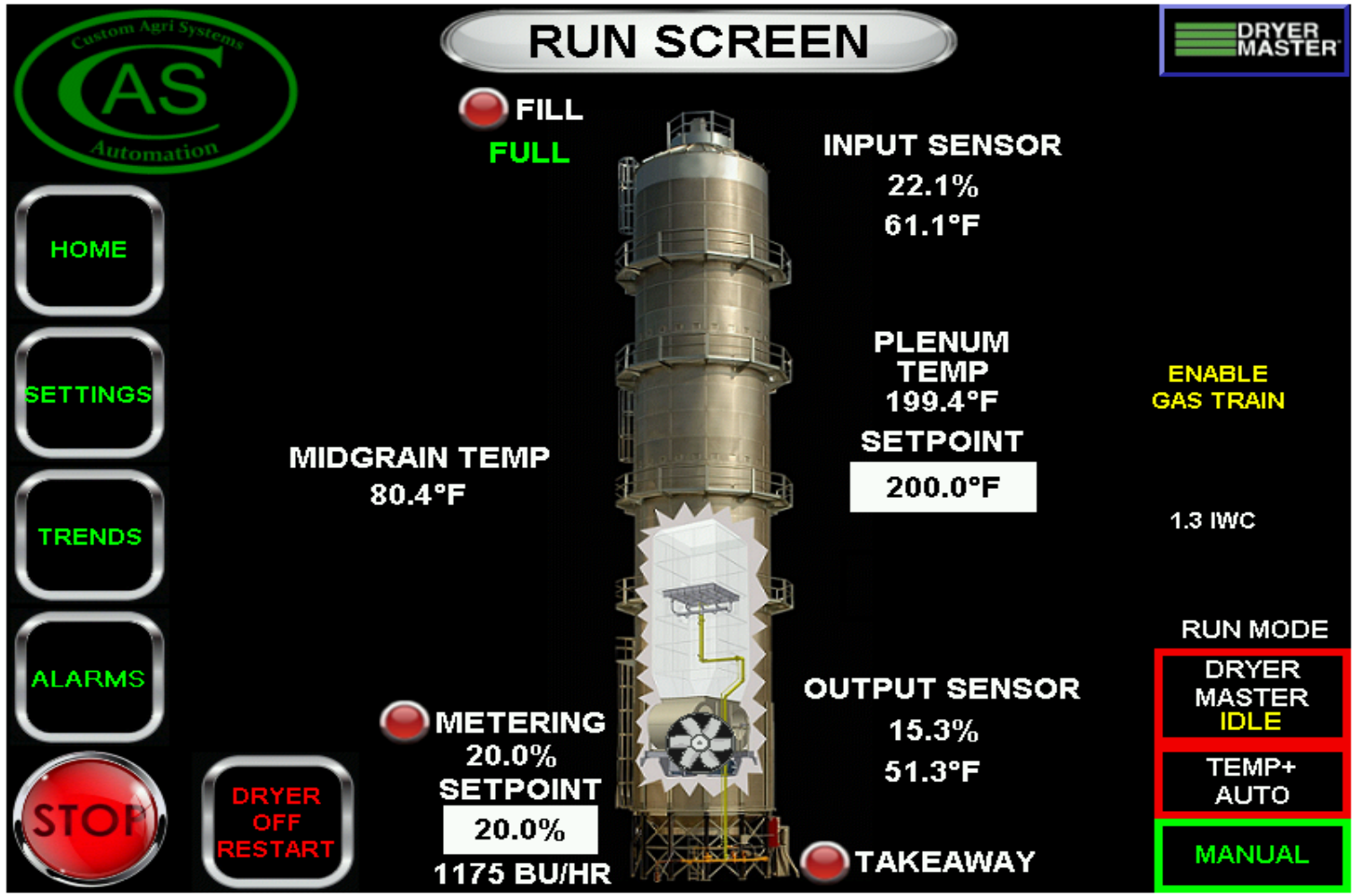
Settings About

SCREEN HELP

ⓘ SCREEN HELP

- Alarms
- Burner System
- Dryer Master
- Dryer Master Alarms
- Fan System
- Fill System
- History
- Inlet Calibration
- Manual Start
- Outlet Calibration
- Paltinum+ (Home)
- Pre-Start Auto
- Pre-Start Manual
- Run Screen
- Safety Circuit
- Settings
- Temp+
- Timers
- Totals
- Trends
- Unload System
- Service Settings (Requires Login)
  - Fans
  - Fill System
  - Temp Reduce
  - Unload System
    - Discharge Calibration
  - Dryer Master

BCT4700



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Dryer Controller & Information Center

Settings About

Automation

DRYER HMI (Disconnect)

TRENDS

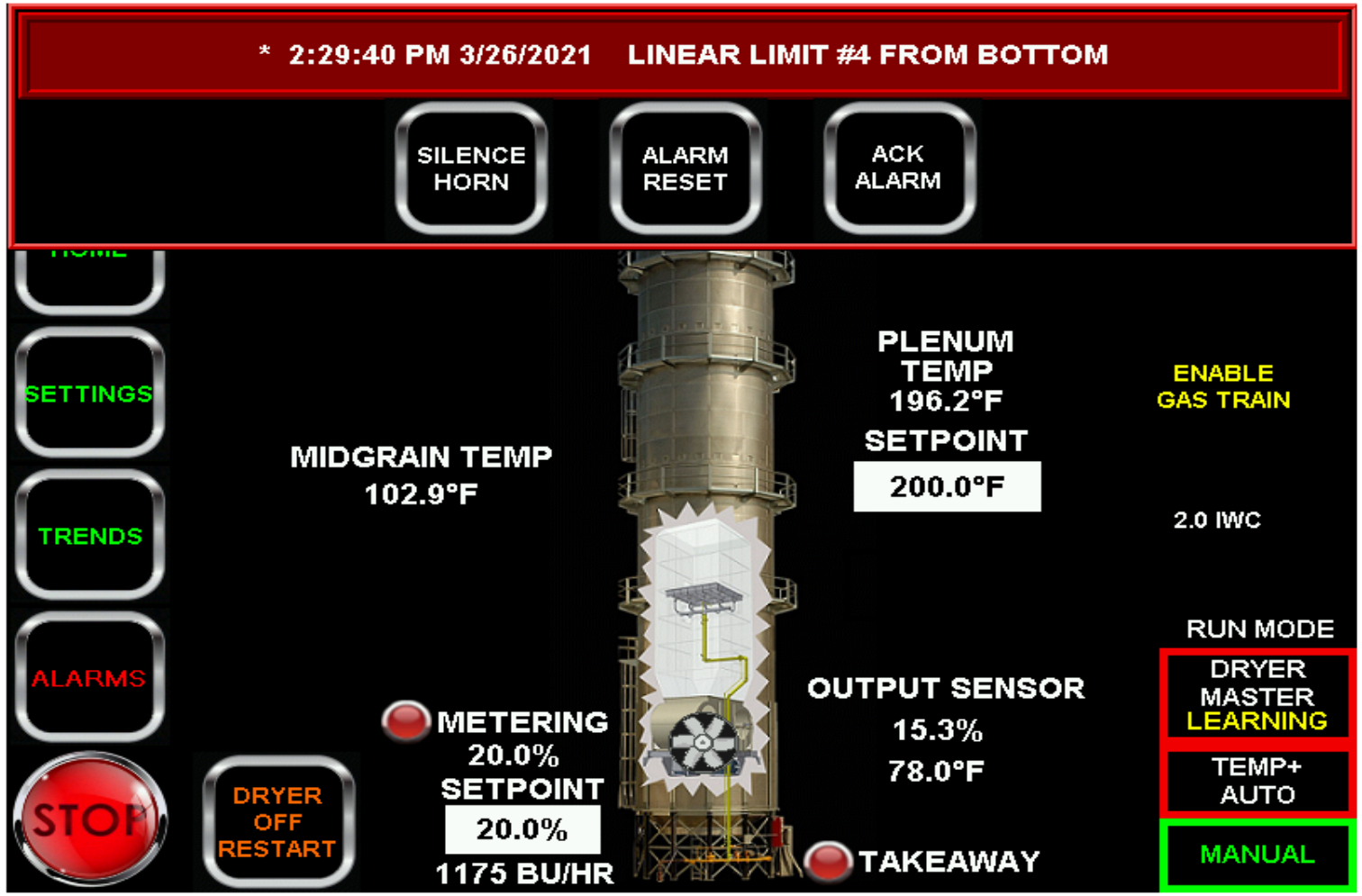
2:27 PM: A69 - LINEAR LIMIT #4 FROM BOTTOM

A69: Details

SCREEN HELP

CASLink

BCT4700



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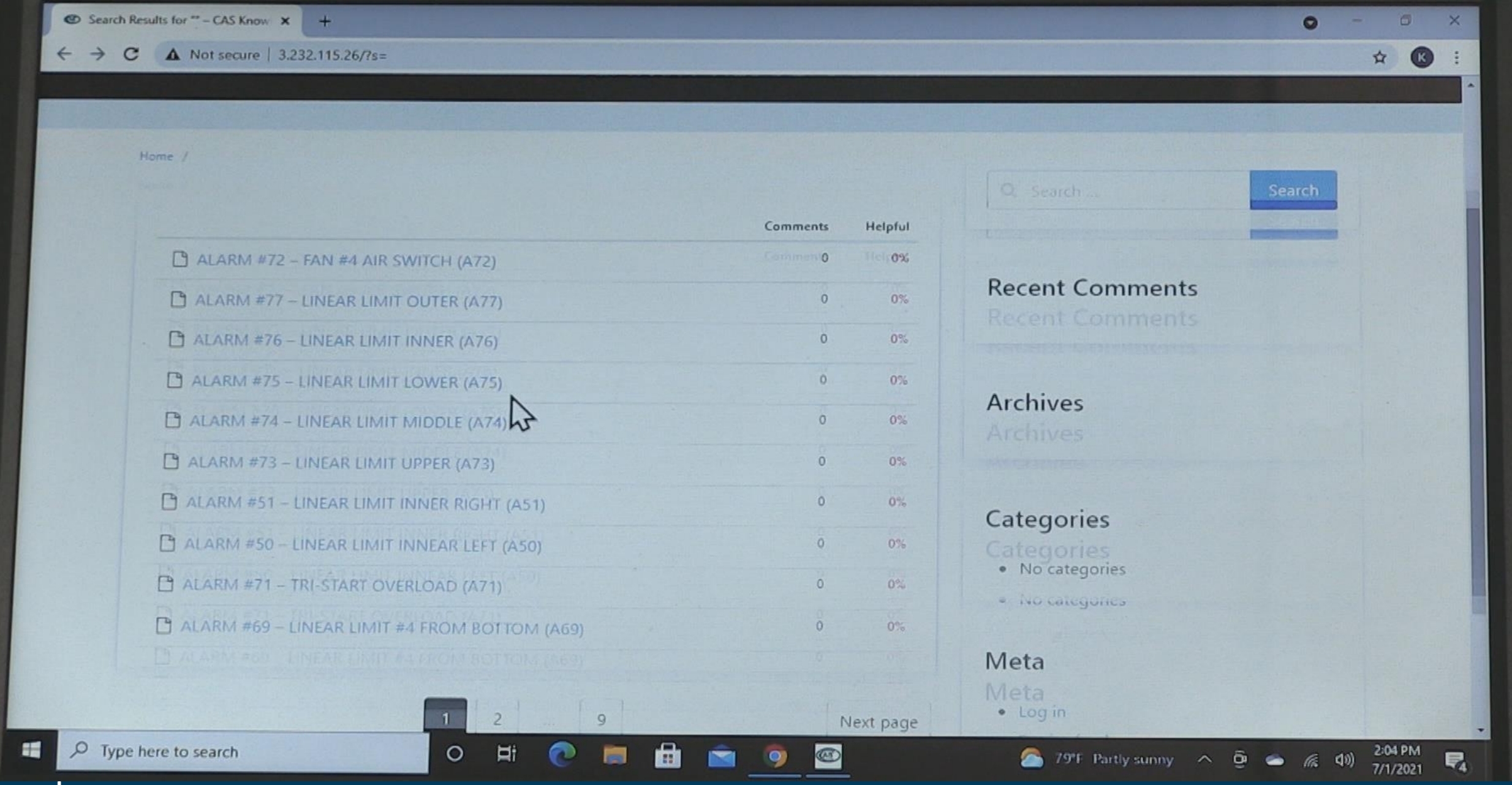

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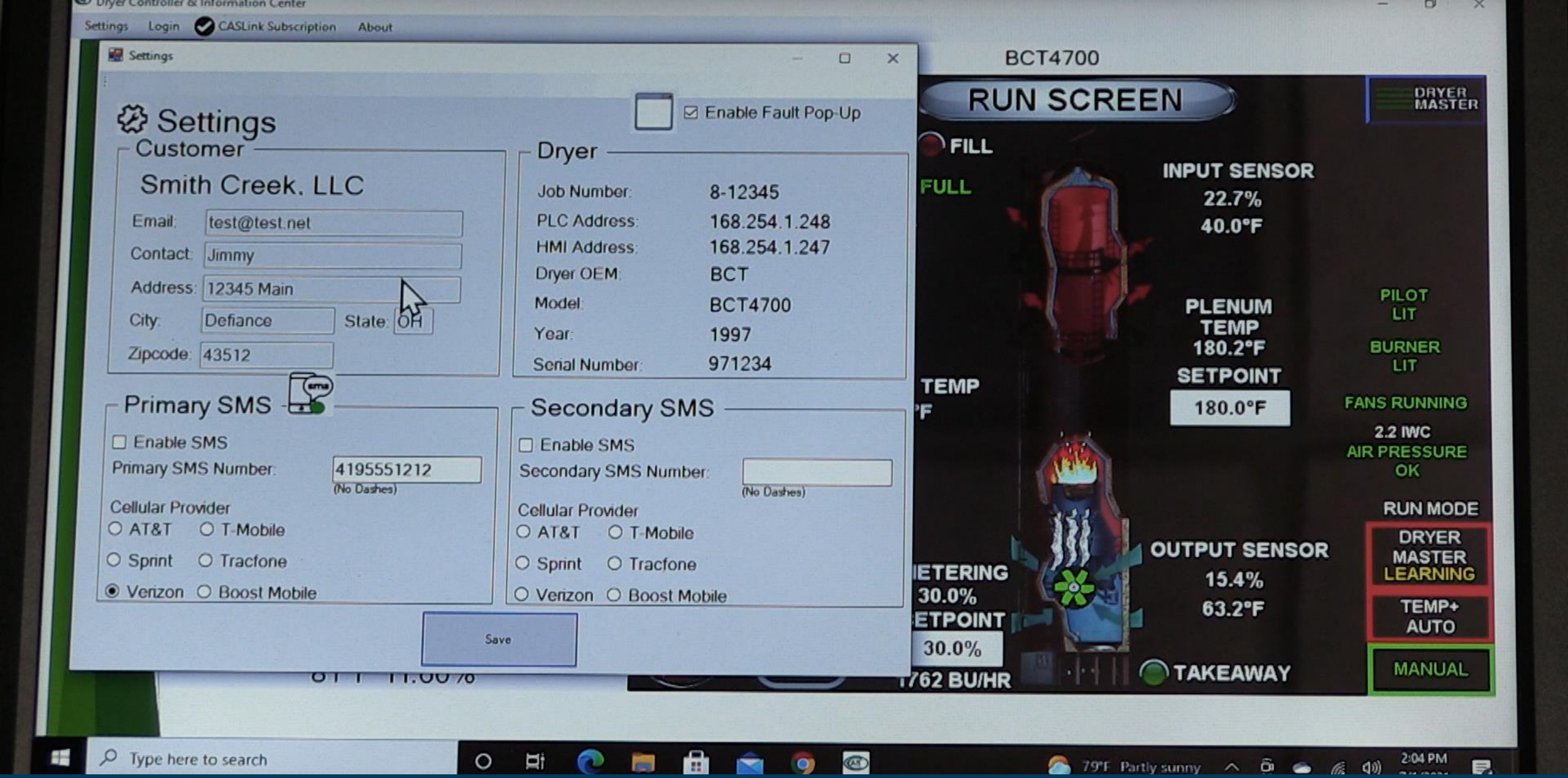

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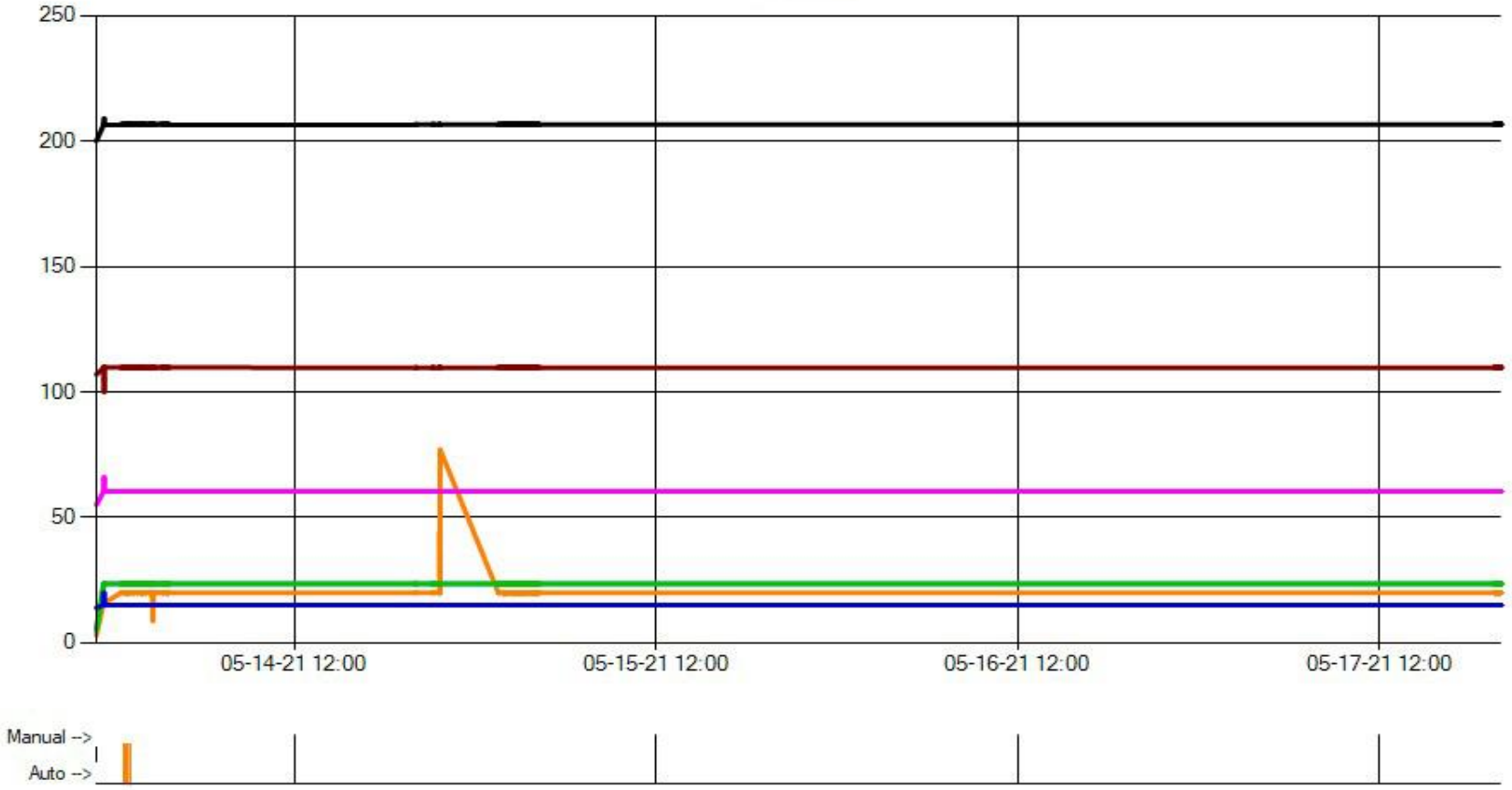
Quick Filter Averages Export

Dryer Trends

Smith Creek, LLC



Date Range Select

5/12/2021 - 5/17/2021

12:00:00 AM - 8:18:25 AM

- [x] Discharge Rate
- [x] Inlet Moisture
- [x] Inlet Product Temperature
- [x] Midgrain Temperature
- [x] Outlet Moisture
- [x] Outlet Product Temperature
- [x] Plenum Air Temperature

Run

Total Records: 1906

Total Bushels: -1,000

View Data

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Quick Filter Averages Export

Dryer Data

Smith Creek, LLC

	DateTime	DischargeRate	InletMoisture	MidGrainTemp	OutletMoisture	OutletProductTemp	PlenumAirTemp	Mode
▶	5/13/2021 10:51 AM	3	5.2	107	14	55	200	Auto
	5/13/2021 11:21 AM	16	23.53	109.625	15.05	60.4	206.52	Auto
	5/13/2021 11:21 AM	16	23.53	109.8	15.05	60.4	206.67	Auto
	5/13/2021 11:21 AM	16	23.53	109.875	15.05	60.4	206.76	Auto
	5/13/2021 11:21 AM	16	23.53	109.7	15.05	60.4	206.67	Auto
	5/13/2021 11:21 AM	16	23.53	109.75	15.05	60.4	206.67	Auto
	5/13/2021 11:21 AM	16	23.53	109.75	15.05	60.4	206.46	Auto
	5/13/2021 11:22 AM	16	23.53	105	20	65	207	Auto
	5/13/2021 11:22 AM	16	23.53	100	16	66	209	Auto
	5/13/2021 11:24 AM	16	23.58	109.7	15.05	60.4	206.52	Auto
	5/13/2021 11:24 AM	16	23.58	109.75	15.05	60.4	206.76	Auto
	5/13/2021 11:24 AM	16	23.58	109.675	15.05	60.4	206.76	Auto
	5/13/2021 11:24 AM	16	23.58	109.9	15.05	60.4	206.49	Auto
	5/13/2021 11:24 AM	16	23.53	109.7	15.05	60.4	206.61	Auto
	5/13/2021 11:24 AM	16	23.53	109.775	15.05	60.4	206.46	Auto
	5/13/2021 11:24 AM	16	23.53	109.825	15.05	60.4	206.67	Auto
	5/13/2021 11:24 AM	16	23.53	109.7	15.05	60.4	206.55	Auto
	5/13/2021 11:24 AM	16	23.53	109.75	15.05	60.4	206.52	Auto
	5/13/2021 12:30 PM	20	23.53	109.775	15.05	60.4	206.49	Auto
	5/13/2021 12:30 PM	20	23.53	109.725	15.05	60.4	206.73	Auto
	5/13/2021 12:30 PM	20	23.53	109.75	15.05	60.4	206.64	Auto
	5/13/2021 12:30 PM	20	23.53	109.8	15.05	60.4	206.46	Auto
	5/13/2021 12:36 PM	20	23.53	109.65	15.05	60.4	206.46	Auto
	5/13/2021 12:36 PM	20	23.53	109.65	15.05	60.4	206.67	Auto
	5/13/2021 12:37 PM	20	23.58	109.65	15.05	60.4	206.52	Auto

Date Range Select

5/12/2021 - 5/17/2021

12:00:00 AM - 8:18:25 AM

- [x] Discharge Rate
- [x] Inlet Moisture
- [x] Inlet Product Temperature
- [x] Midgrain Temperature
- [x] Outlet Moisture
- [x] Outlet Product Temperature
- [x] Plenum Air Temperature

Run

Total Records: 1906

Total Bushels: -1,000

Show Trend

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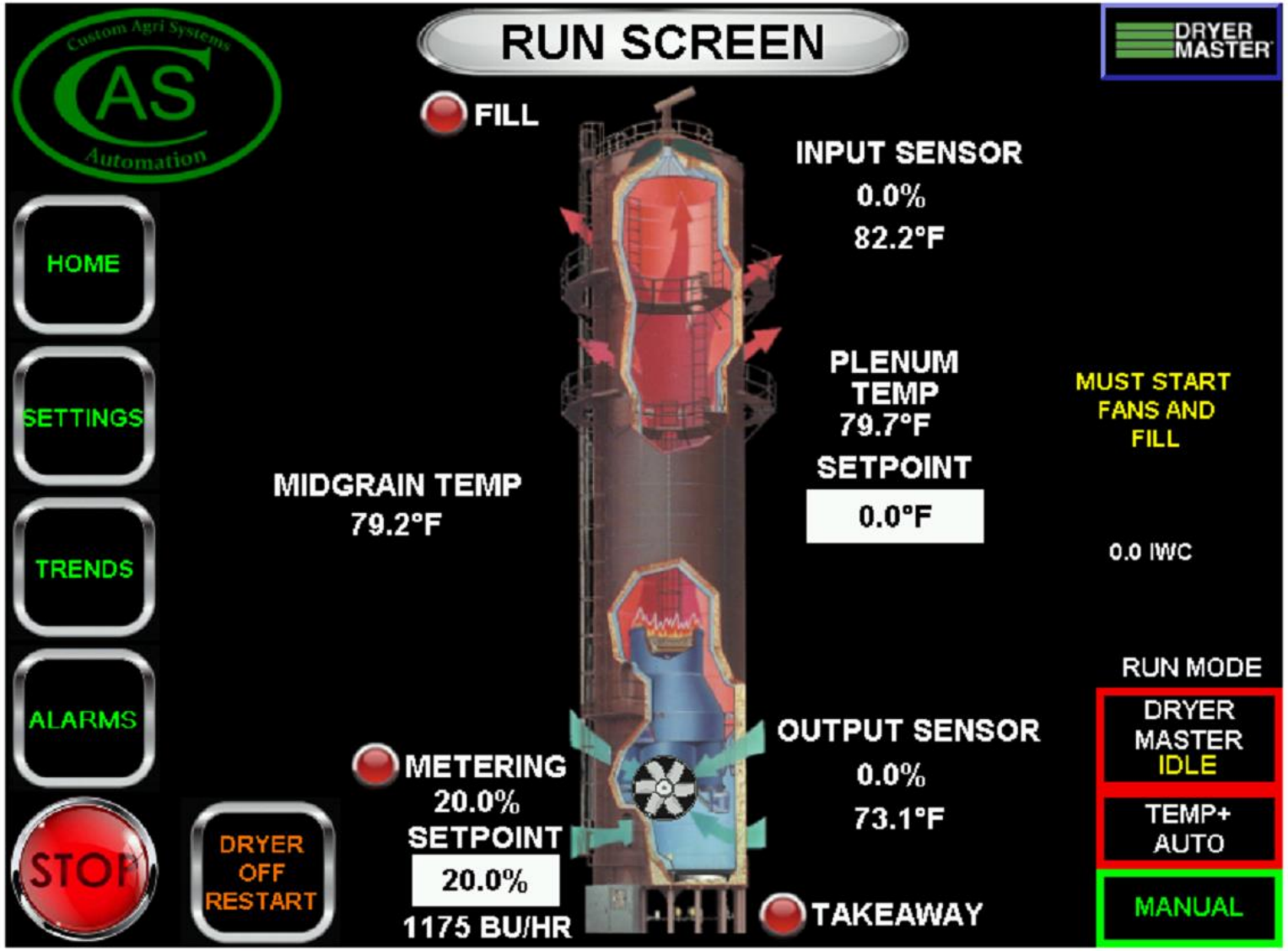
Automation

CASLink Chat

Zach Revis

> I'm having trouble with my unload
What's the issue? <

Main Menu



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Custom Agri Systems Inc

CAS Platinum Plus Dryer Controller

Custom Dryer Suppression Systems

CAS Family of Companies

- Innovative products and services

SEE US AT BOOTH #

2720

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Motion Amplification

Pepper Maintenance

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Edward LaPreze

Pepper Maintenance

Director of Sales/Marketing

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Pepper Maintenance®

"The Hottest Name in Reliability!"

Edward LaPreze

Level II Thermographer

Category II Vibration Analyst

Certified in Precision Alignment / Balancing

SMRP Member

Motion Amplification Certified

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Motion Amplification - Unique features and benefits

- Measure deflection, displacement, movement and vibration
- Reveal movement not visible to the human eye
- Every pixel in the video becomes a sensor
- See the bigger picture
- Non-contact measurement Visualisation of vibration data
- Complementary Condition Monitoring tool
- Revolutionises ODS analysis
- Set up, acquire and visualise in minutes not days
- Applications: Up to your imagination!

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Why is Visualization So Important?

- Imagine what you could do by visualizing faults in machinery, infrastructure, and human performance. You can look at numbers and analysis from tools like accelerometers, strain gauges and modelling software and still not be able to visualize what the problem is. Being able to see what is happening can change your perspective completely along with allowing more targeted and cost effective approach to fault analysis. There are tools to magnify an image or to offer point measurements on a machine or piece of infrastructure, but no real way to see what is happening live and over the whole asset until now. RDI offers the first non-invasive, simple, and cost effective way to visualize what is happening beyond what you can see with your eye.
- We aren't guessing at the motion or adding in artifacts, you are seeing the true microscopic motions of any object in the field of view.

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How Does It Work?

- Motion Amplification's patented technology measures deflection, displacement, movement and vibration not visible to the human eye. RDI utilizes video camera technology in conjunction with proprietary software and processing algorithms to extract meaningful data. This technology turns every pixel in the camera's view into a sensor capable of measuring vibration or motion with high levels of accuracy.
- You can visualize the motion together with measuring and quantifying any structural assets that a camera can see. Motion Amplification is a proprietary video processing algorithm that detects subtle motion then amplifies that motion to a level visible with the naked eye which enhances the understanding of the components and interrelationships creating the motion.

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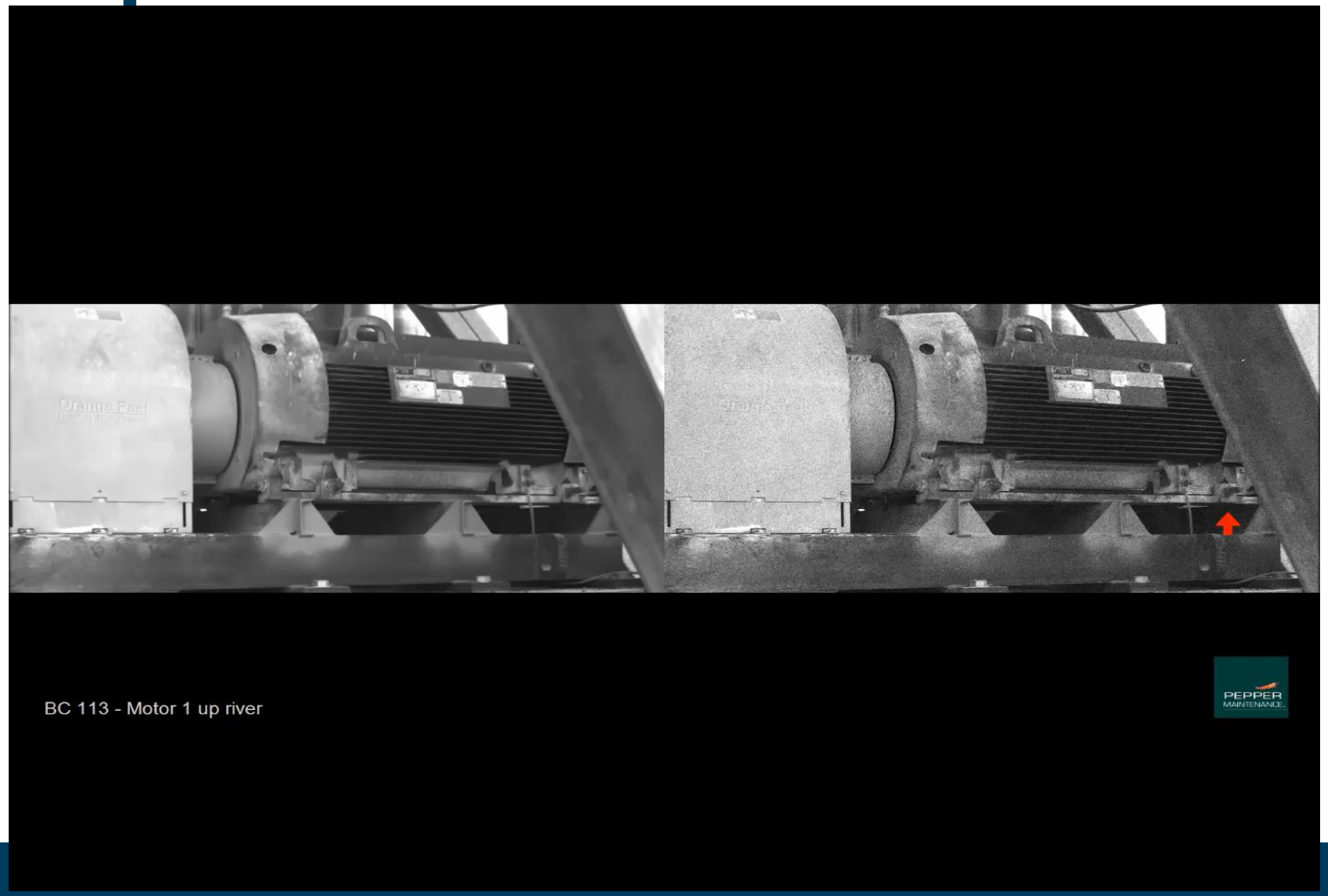
Motion Amplification



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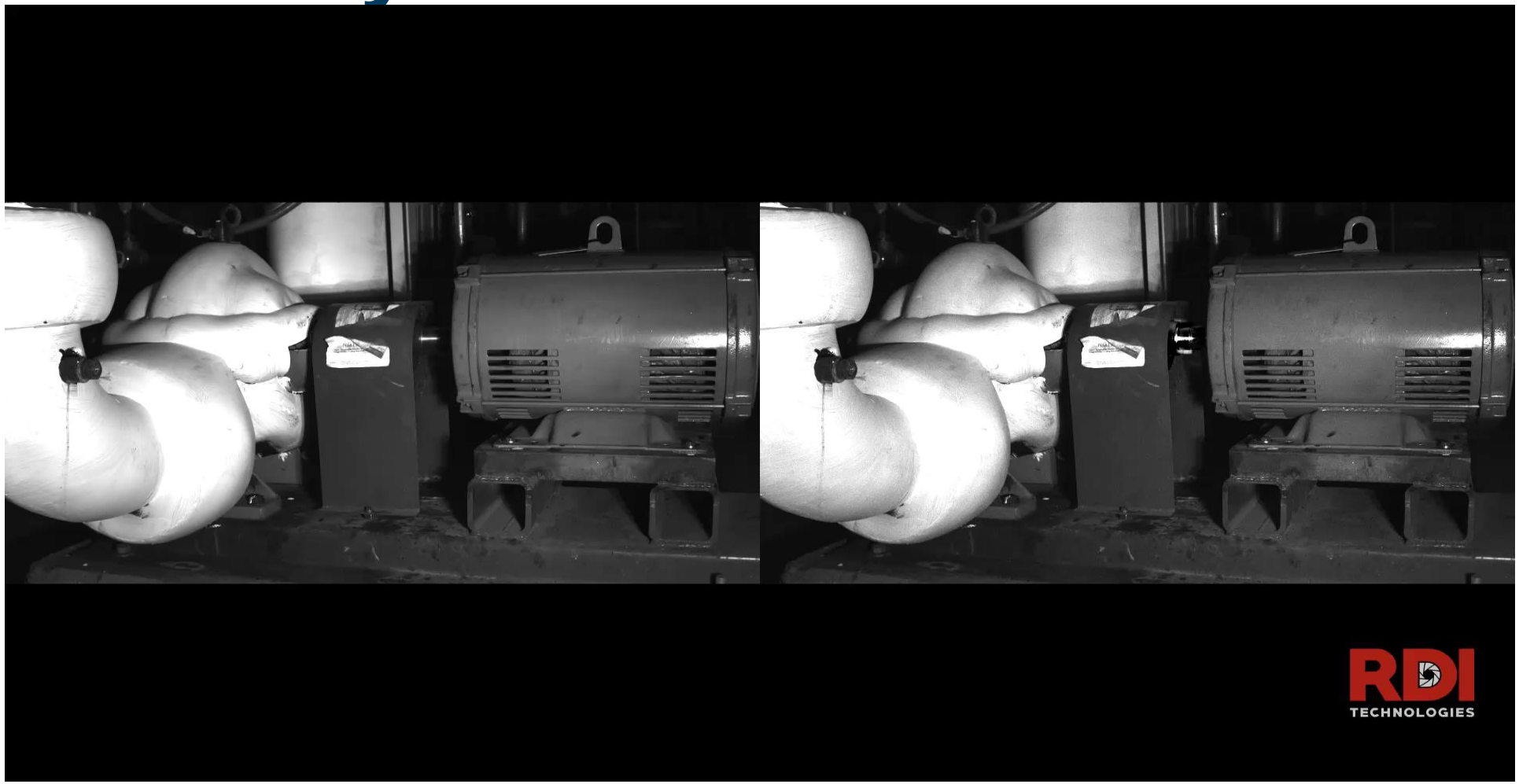
Case Study



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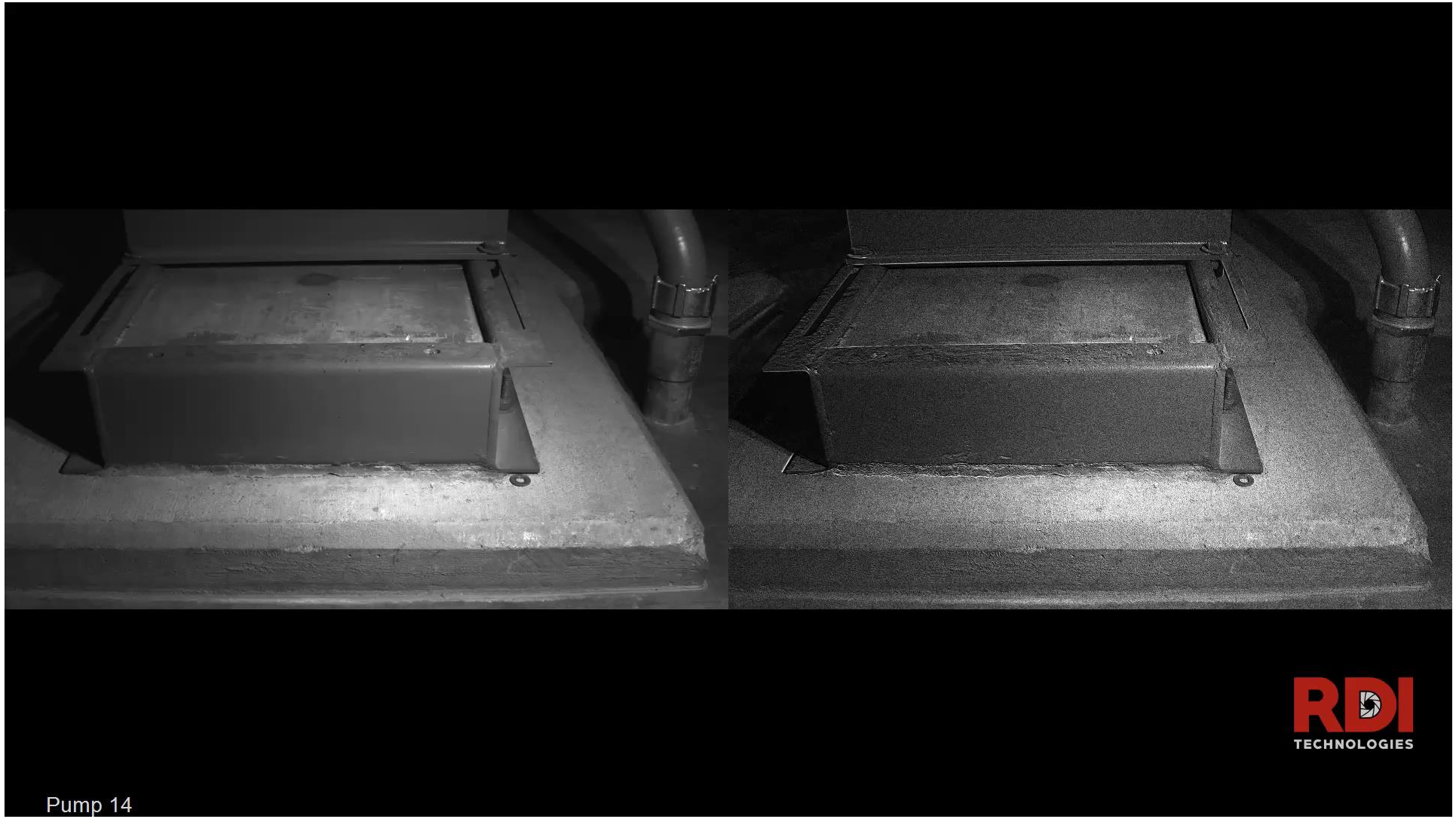

Pump 14

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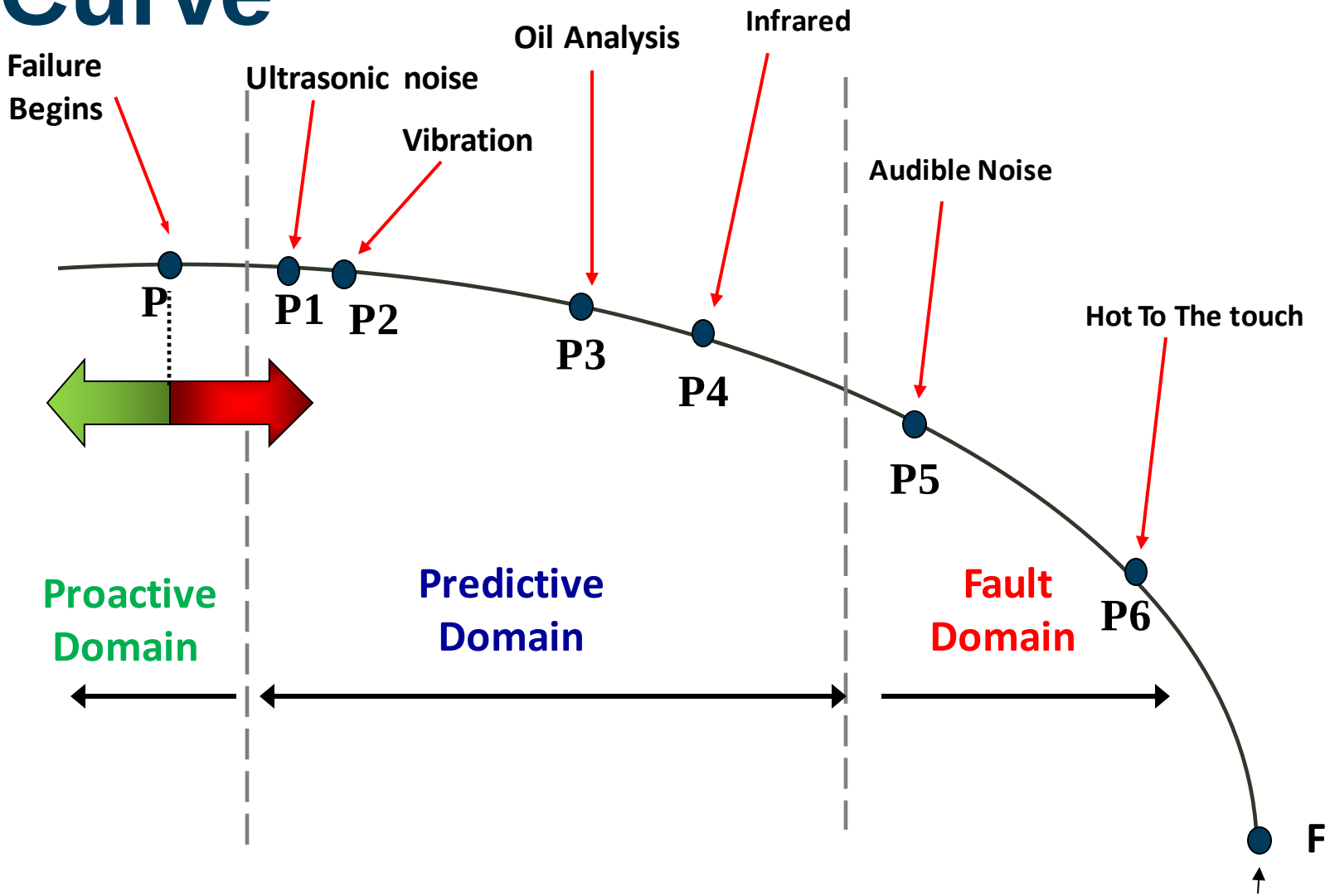
Fert Belt 18

The P - F Curve



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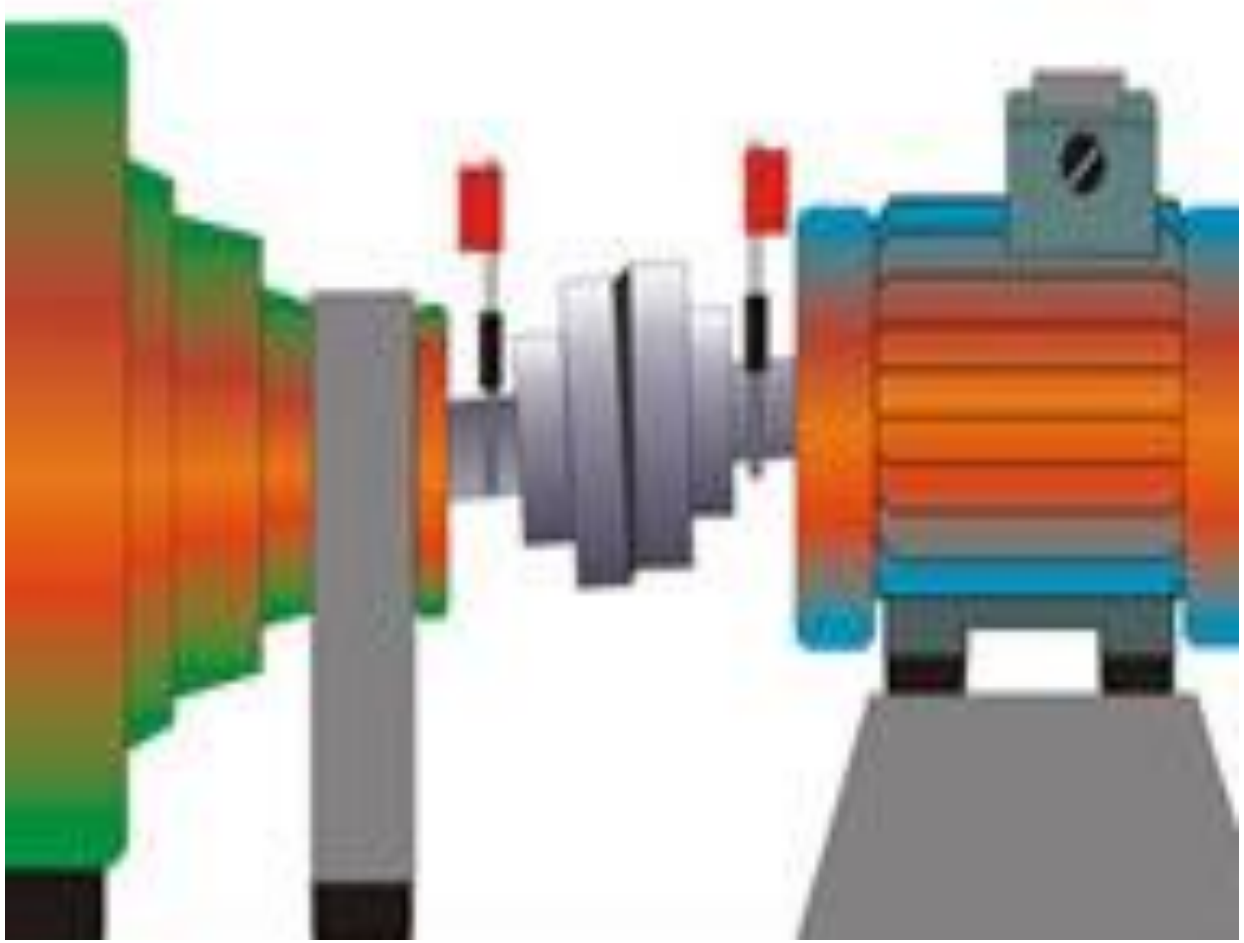

Questions?

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Advance Dust Monitoring
The DumoPro

Arnco Safety – Sintrol - SynFab

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SINTROL
Measuring Matters

ARNCO SAFETY

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John Korpi

Sintrol

Director of Sales and Marketing

SINTROL
Measuring Matters

Partnered With

ARNCO SAFETY

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Dust Challenges

- Fires
- Explosions
- Health & Hygiene
- Equipment Failures
- Nuisance Dust

SINTROL
Measuring Matters

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Challenges

- Wide range of sources
- Large footprint
- Difficult to monitor
- Difficult to manage
- Continuous changing footprint

SINTROL
Measuring Matters

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DumoPro Dust Detector

- Real-time 24/7 dust monitoring
- Low maintenance
- Long term trend monitoring

SINTROL
Measuring Matters

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DumoPro Dust Detector

- No sample handling required
- Automatic setup procedure
- Internal self-monitoring fail-safe operation
- Monitors trends and unexpected events

SINTROL
Measuring Matters

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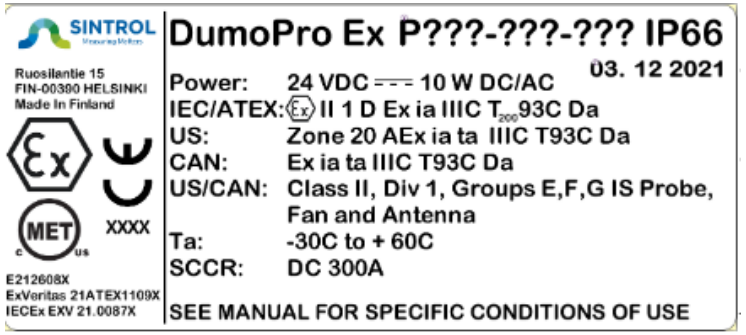
DumoPro Dust Detector

- Class II, Div 1, Groups E,F,G
- IP66
- Detection limit from 0,1mg/m3



SINTROL
Measuring Matters

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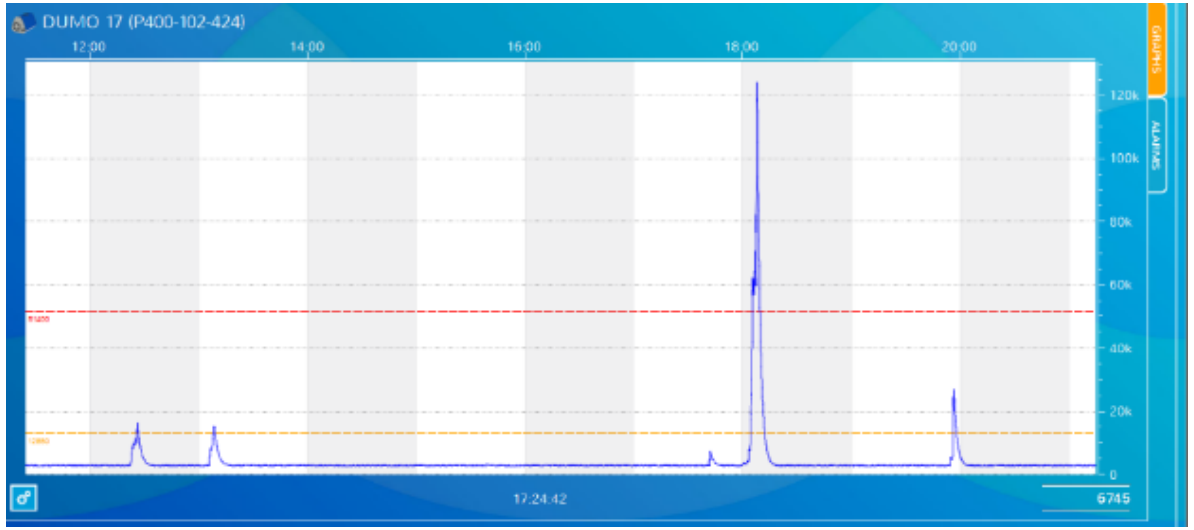
Real-time 24/7 Dust Monitoring



- Current dust level
- 1st Alarm – 5X average baseline
- 2nd Alarm – 20x average baseline

- Dust levels visible in real time
- Allows quick response to dust events
- Supports the mandatory compliance monitoring to pinpoint source
- Trigger local sound or siren if dust levels increase above set levels

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Measuring Matters

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Typical Application Points

- Receiving tunnels
- Processing Rooms
- Milling areas
- Silo skirts
- Mixing rooms
- Conveyor lines
- Head houses
- Hazardous location supervision

- *Dust detection for unwanted events

SINTROL
Measuring Matters

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Tough & Sensitive

- Confidence in dust handling and management
- Help mitigate the risk for dust explosions
- Promote good housekeeping practice
- Continuous real-time information of process

SINTROL
Measuring Matters

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Visit Us At Booth 1914

- Live demonstrations at Arnco Safety booth during Expo
- Let's discuss your operation
- We will be presenting at the Innovation Station #4 – Monday 10:30AM – 11:15AM

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Tsunami Gate™ & Tsunami Hatch™

The Greenbrier Companies

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Peter Jones

The Greenbrier Companies

SVP, Product Development and Automation

GBX
THE GREENBRIER COMPANIES

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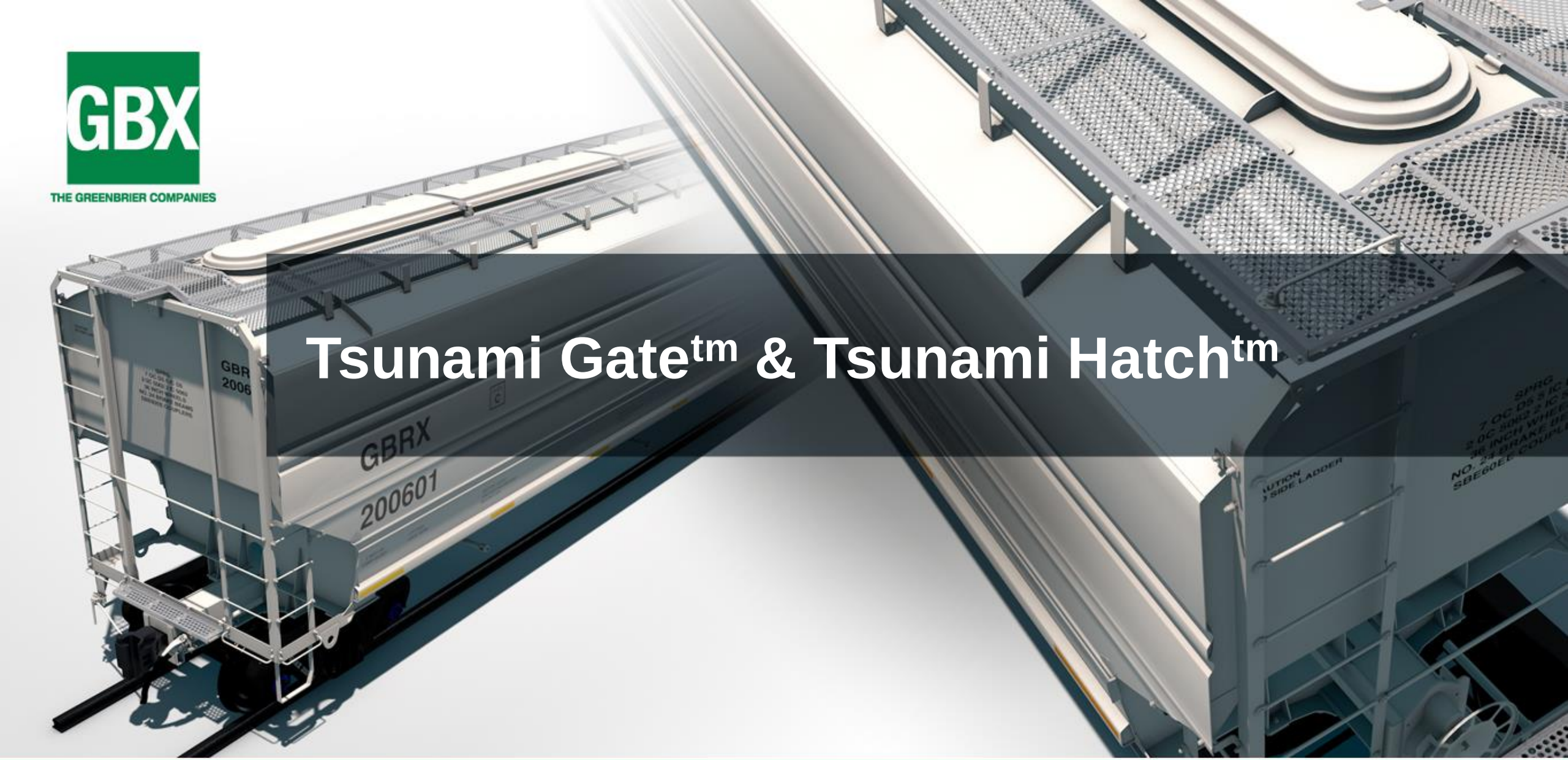

Tsunami Gate™ & Tsunami Hatch™

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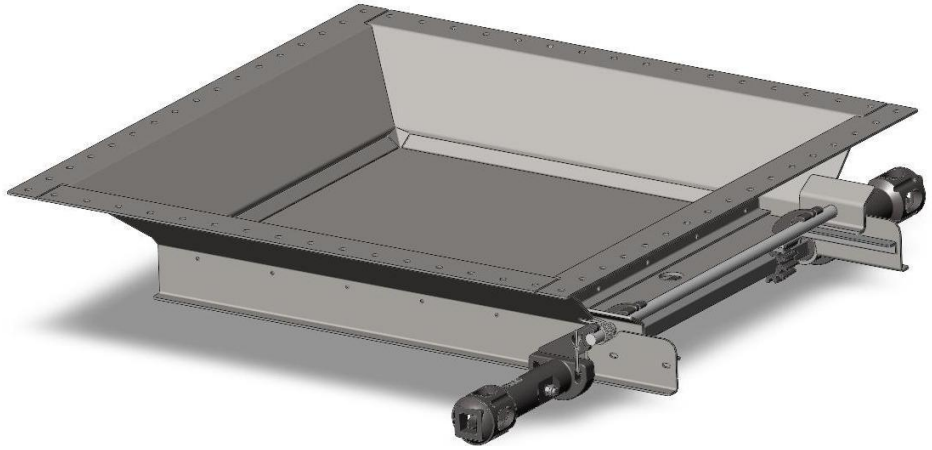
US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Unloading a Grain Car….



Manual

Power Assisted

Automated

Vibrator

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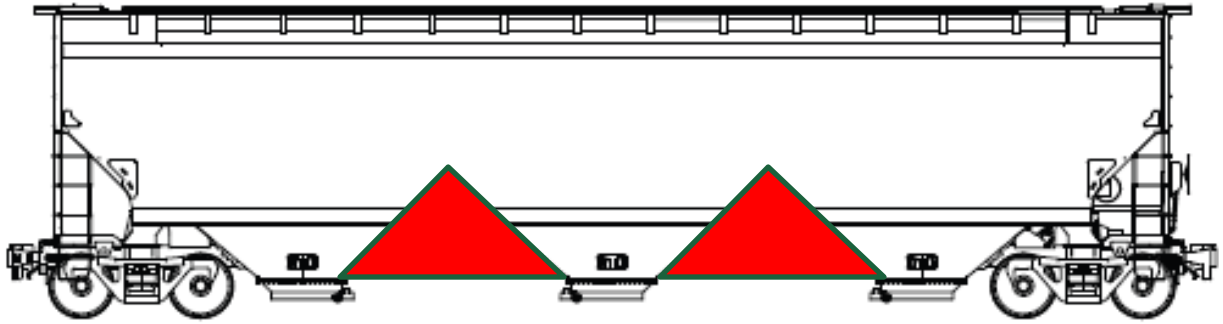
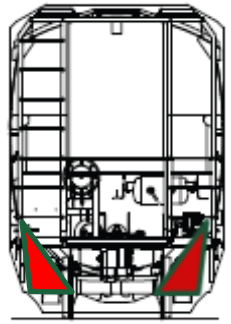
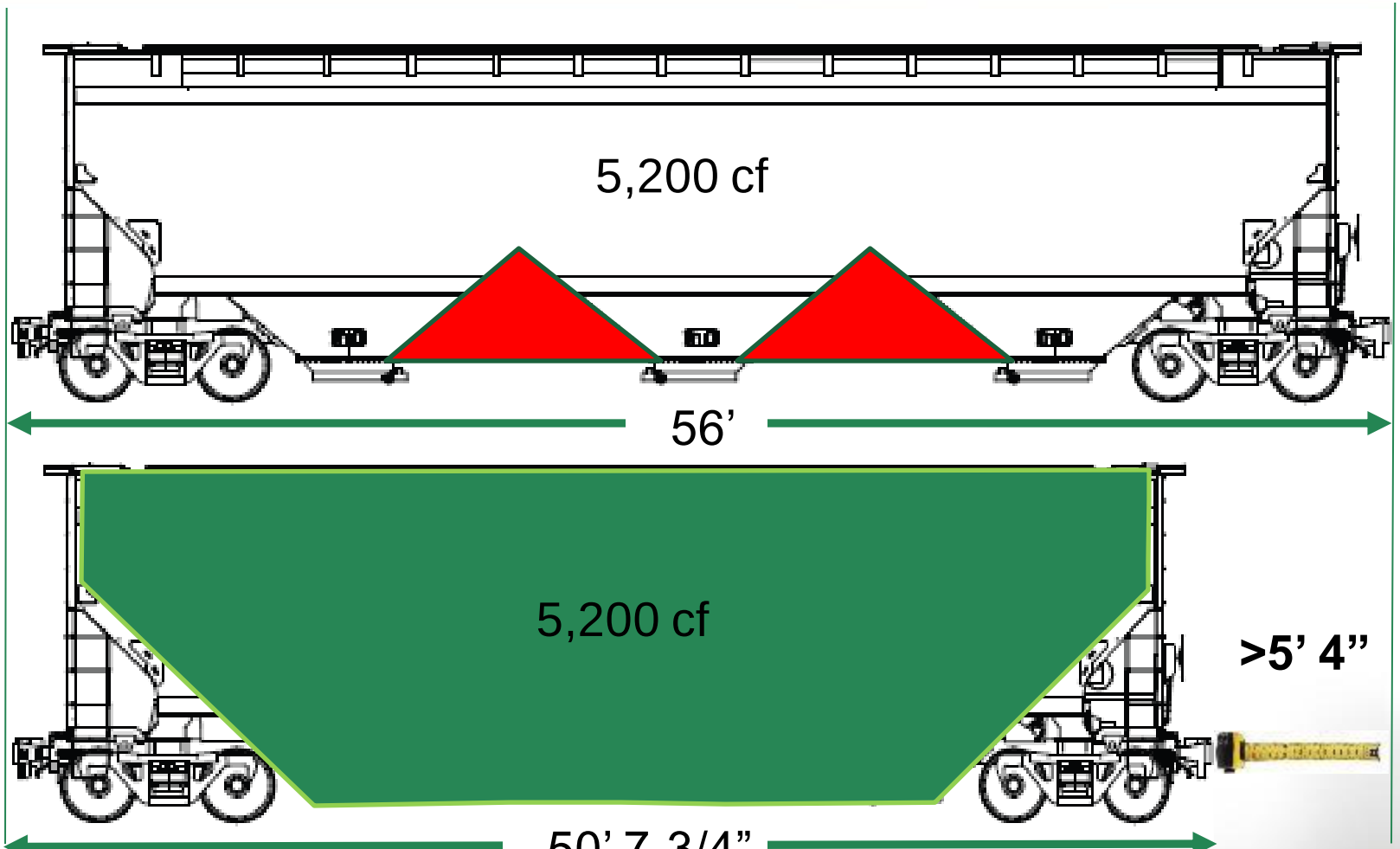
Is the 30”x30” gate a “waste of space”?





If we utilize more of the space between the trucks, we can shorten the length of the car.

Same Capacity, Shorter Car….



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5,185cf Grain Car with Tsunami-Gate™

GBX
THE GREENBRIER COMPANIES

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US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Tsunami Gate in Action

US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Operation: Connect 90-100psi Air Supply

Note: Air Supply can be connected from either side of the car.

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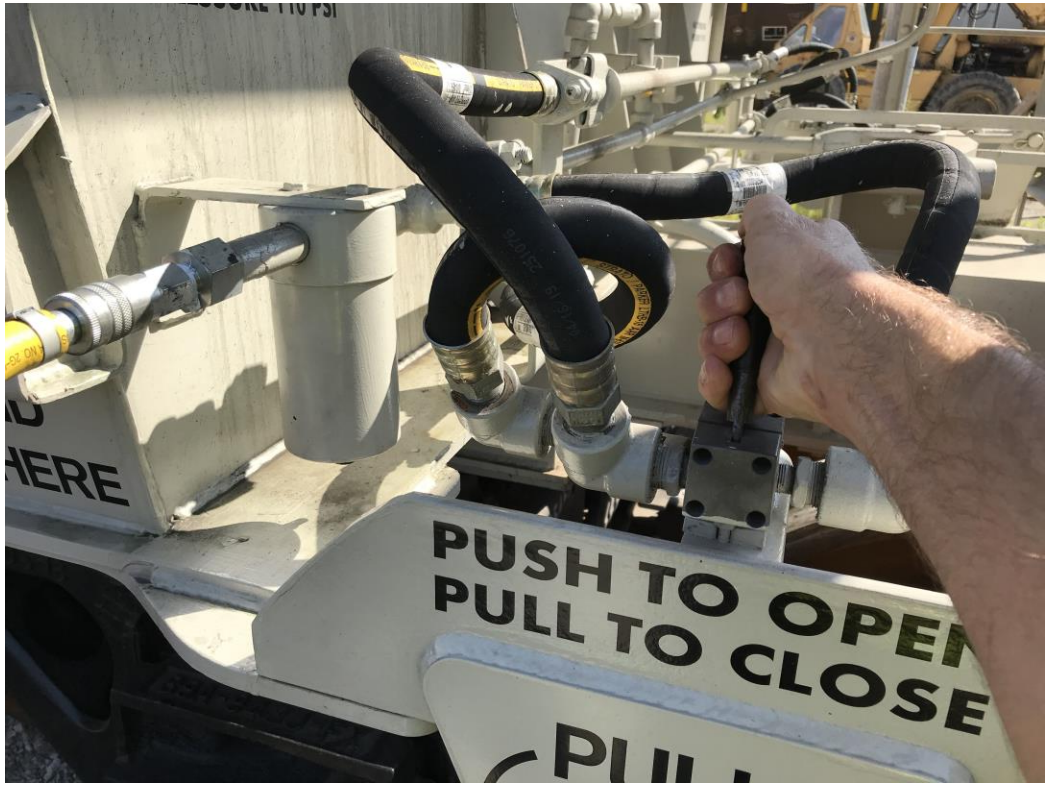
US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Operation: Open & Close Discharge Gates



Push Handle to Open

Pull Handle to Close

Notes:
1. Operating Handles are located on either side of the car.
2. Disconnect and vent the air before releasing the car into traffic.

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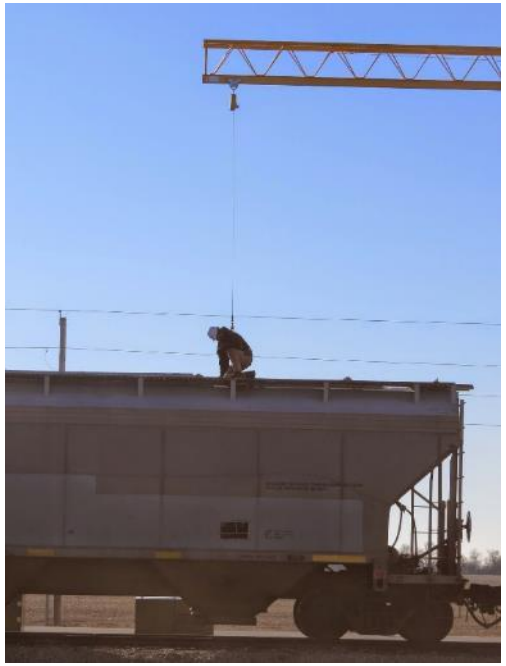
Loading a Grain Car….



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Tsunami Hatch™

US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Installation @ Eagle Railcar, Washington IN 10/25/20

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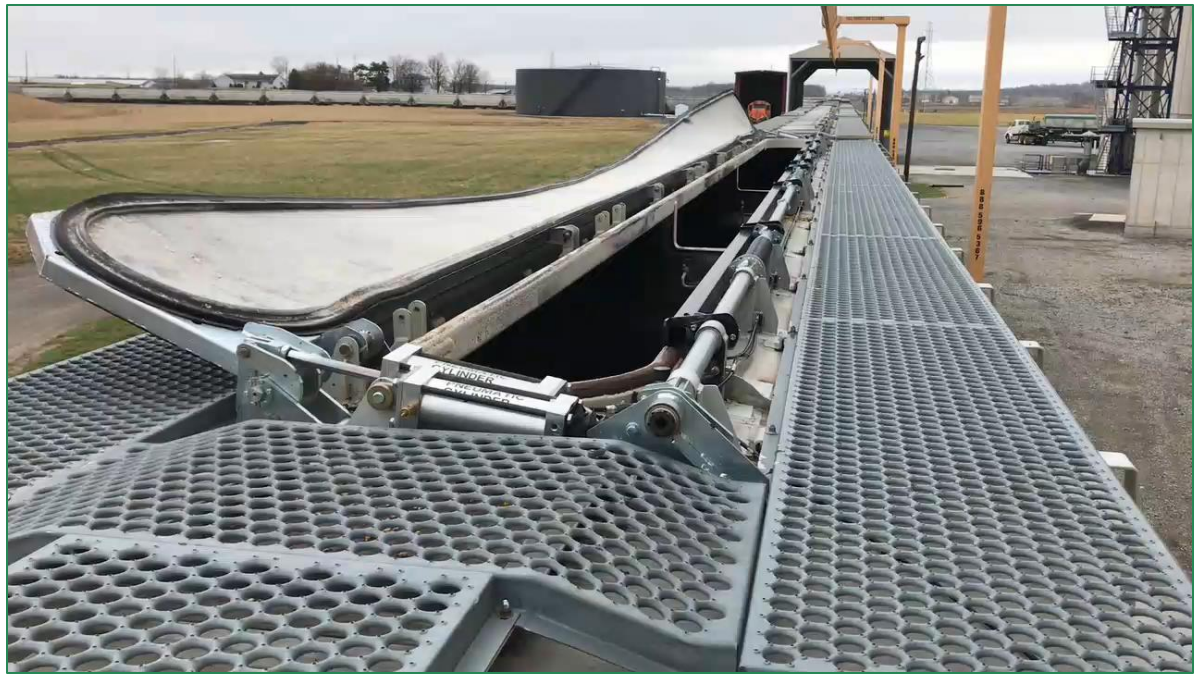
US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Inspection @Cargill, Milford, IN Terminal 3/26/21



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US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Benefits of Tsunami Gate™ & Hatch™

- 5’ to 6’ shorter than current grain car designs
- Allows >12 additional cars per train (129 cars vs. 117)
  - >10% improvement in Tons/unit length
- Improved dynamic ride performance.
- Aerodynamic Performance = 57% Drag Reduction.
- Discharge time of >30 seconds.
- Automated Loading/Unloading improves worker safety.
- Enables Continuous or Circus Loading/Unloading.
- Gate Testing to AAR S-233 (September 2018)
- Hatch AAR S-60 Conditional Approval (Dec 2022)

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US Patent #10906561 & Patent Pending #16/743,743 & 17/001,949

Covered Hopper Automation

GBX
THE GREENBRIER COMPANIES

Thank you for your time!

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Grain Weevil

A GRAIN BIN SAFETY AND MANAGEMENT ROBOT

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CHAD JOHNSON

Grain Weevil Corporation

CEO

GRAIN WEEVIL
GRAIN BIN MANAGEMENT ROBOT

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Doing the Jobs that No Worker Should!

- Worker Well-Being
- Grain Quality Management
- Workflow Efficiency

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Grain Weevil

A GRAIN BIN SAFETY AND MANAGEMENT ROBOT

For more information visit us at www.grainweevil.com

Or email: chad@grainweevil.com

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Protecting Grains with Insect Protectants

Central Life Sciences

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Dannis Warf

Central Life Sciences

Regional Manager – Cornbelt Region

BUG FREE GRAINS
Stored Product Solutions

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BUG FREE GRAINS
Stored Product Solutions

GEAPS EXCHANGE 2022
New Grain Protectants

- Dannis Warf – Central Life Sciences

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CENTRAL LIFE SCIENCES

A **new** liquid concentrate formulation featuring 3-in-1 insect control with an adulticide, an insect growth regulator (IGR) and a synergist.

GRAVISTA® INSECTICIDE FEATURES

- Three active ingredients
- Broad-spectrum and long-term residual control
- On-grain, empty-bin and perimeter treatment
- For use on wheat, corn, rice and other labeled grains and seeds
- Water, oil, and dust-controlling oils dilutable formulation
- CODEX approved for cereal grains

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BUG FREE GRAINS
Stored Product Solutions

A **new** formulation that gives a boost to post-harvest insect control.

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CENTYNAL™ SYNERGIZED FEATURES

- Two active ingredients
  - Deltamethrin 1.2%
  - Piperonyl butoxide 33.3%
- Tough on hard to control stored product insects
- Rescue application impact
- CODEX approved for cereal grains
- May be tank mixed with other products
- For use on wheat, corn, rice and other labeled grains and seeds

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BUG FREE GRAINS
Stored Product Solutions

Combination insect growth regulator, synergist and adulticide used as a fog or space spray.

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INSELUX™ FOG & MILL SPRAY

- Three active ingredients:
  - Piperonyl butoxide 1.5%
  - Pyrethrins 0.3%
  - S-Methoprene 0.3%
- Contains an insect growth regulator, synergist and adulticide
- For use with mechanical, thermal or compressed air fogging systems or space spray
- Concentrated insecticide, IGR and Synergist for use straight or diluted
- Broad label applications for a wide variety of target sites. Mills, warehouses, food handling facilities, animal feed, etc.

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BUG FREE GRAINS
Stored Product Solutions

For additional information visit us at:

Booth #1511

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BUG FREE GRAINS
Stored Product Solutions

BUG FREE

GRAINS

Stored Product Solutions

www.BugFreeGrains.com

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CENTRAL LIFE SCIENCES

7 Ways Agriculture Companies Can Stop Cyber Attacks

Stoneridge Software/Levridge

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David Ruelle

Stoneridge Software\Levridge

VP of Sales and Marketing

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Ransomware & Leakware

- Criminals obtain access to the network and install a program that locks access to everything on the network and encrypts files
- Will only release the keys once ransom is paid
- Only recourses are to wipe machines and restore data or pay the ransomware
- Ransom is paid using cryptocurrency so the destination is not traceable

- Ransomware with a threat to expose all the data if the ransom is not paid

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7 Prevention & Remediation Steps

1. Invest in Cyber-Security Insurance with ransomware protection
2. Back up all your data to the cloud and another offline location and make sure you have practiced restoring that data
3. Set up multi-factor authentication for your key applications
4. Install phishing prevention software for email
5. Install and maintain a quality firewall with proper preventative services
6. Remove admin privileges on desktops for installing software locally
7. Train your team regularly on how to prevent attacks and identify phishing emails

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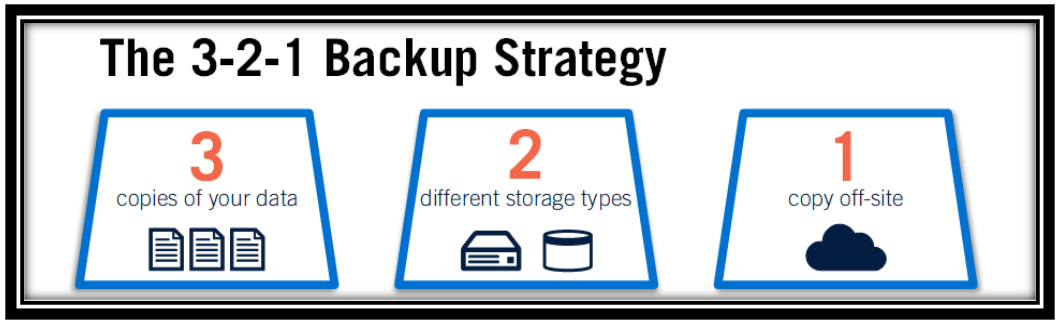
Back Up Your Data



What data should I back up?

- All core transactional systems – document libraries, hard drive files, email, ERP, CRM, Active Directory

How frequently should I back it up?

- Daily is the best practice – ERP/CRM you may want to back up hourly if you have significant transaction volume
- Practice 3-2-1 backup strategy

Are there tools that help with this?

- Cloud backups most recommended
- On-premise backup tools like Veeam

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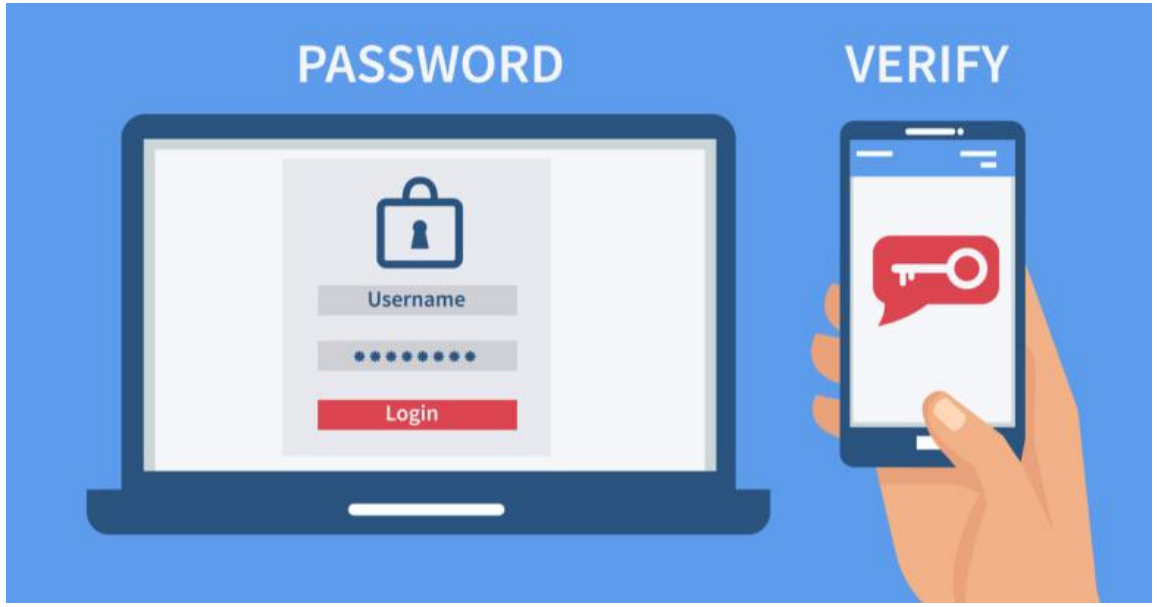
Multi-Factor Authentication



What is it?

- Requiring 2 or more steps to log into a cloud-hosted application
- Mostly commonly it's the combination of a password and a text to your phone

How do you set it up?

- In Office 365, it's a global setting or it can be applied on particular accounts
- Microsoft Documentation link

Other things to keep in mind

- Good idea to use a password vault – we use Keeper internally
- Develop a plan for employees who leave the company; reset their passwords right away and disable their ability to log in

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Key things to do right away

- If you are on Exchange On-Premise, get off it right away
- Store your files on OneDrive – you get 1 TB of storage in most plans so everyone's content is automatically backed up
- Buy a password vault for your team so they can store their passwords centrally (we use Keeper Security)
- Make sure you have a good off-boarding strategy for people leaving the company
- Check out Government resources to learn more:
  - Stop Ransomware website: Stop Ransomware | CISA
  - Don't Wake Up to Ransomware video: Don't Wake Up to a Ransomware Attack
  - Cybersecurity & Infrastructure Security Agency YouTube: CISA - YouTube

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Questions?

Stoneridge Software

- Thank you

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FlakeBoss

Feed Yard Industrial Solutions

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Eric Roth

Feed Yard Industrial Solutions

Hazardous Monitoring Group Supervisor

FEED YARD
INDUSTRIAL SOLUTIONS

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FLAKE BOSS

ADVANCED FLAKING CONTROL

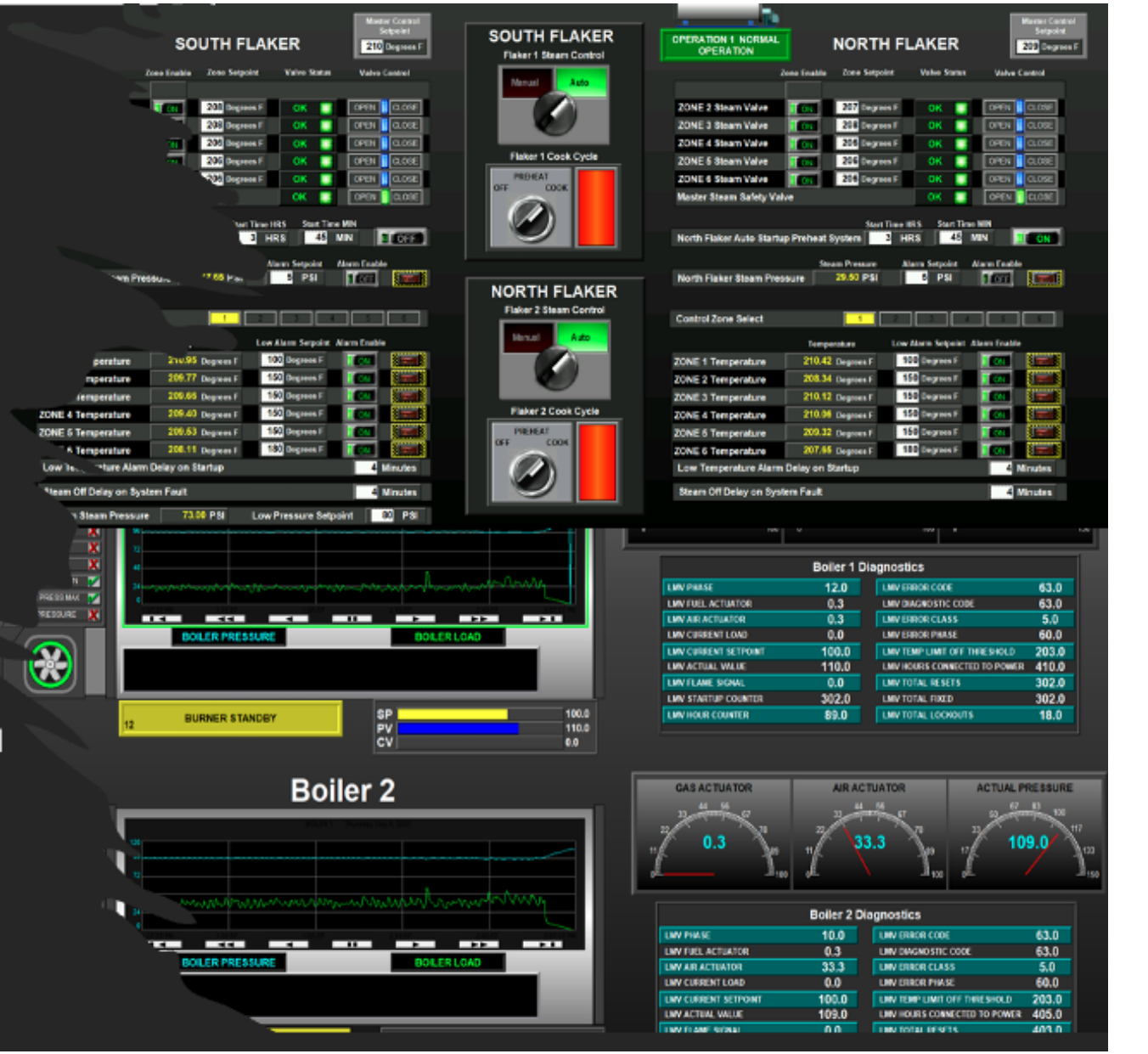
Increasing Commodity Value with Automation

FLAKE BOSS

ADVANCED FLAKING CONTROL

Why FlakeBoss at my facility-

- Large protein producers have advanced feed value by utilizing automation with flakes and pellets
- Processing current inventory adds value to the commodity immediately
- New market potential for current commodity inventory at a higher value following processing
- Consistent daily revenue by partnering with local protein producers



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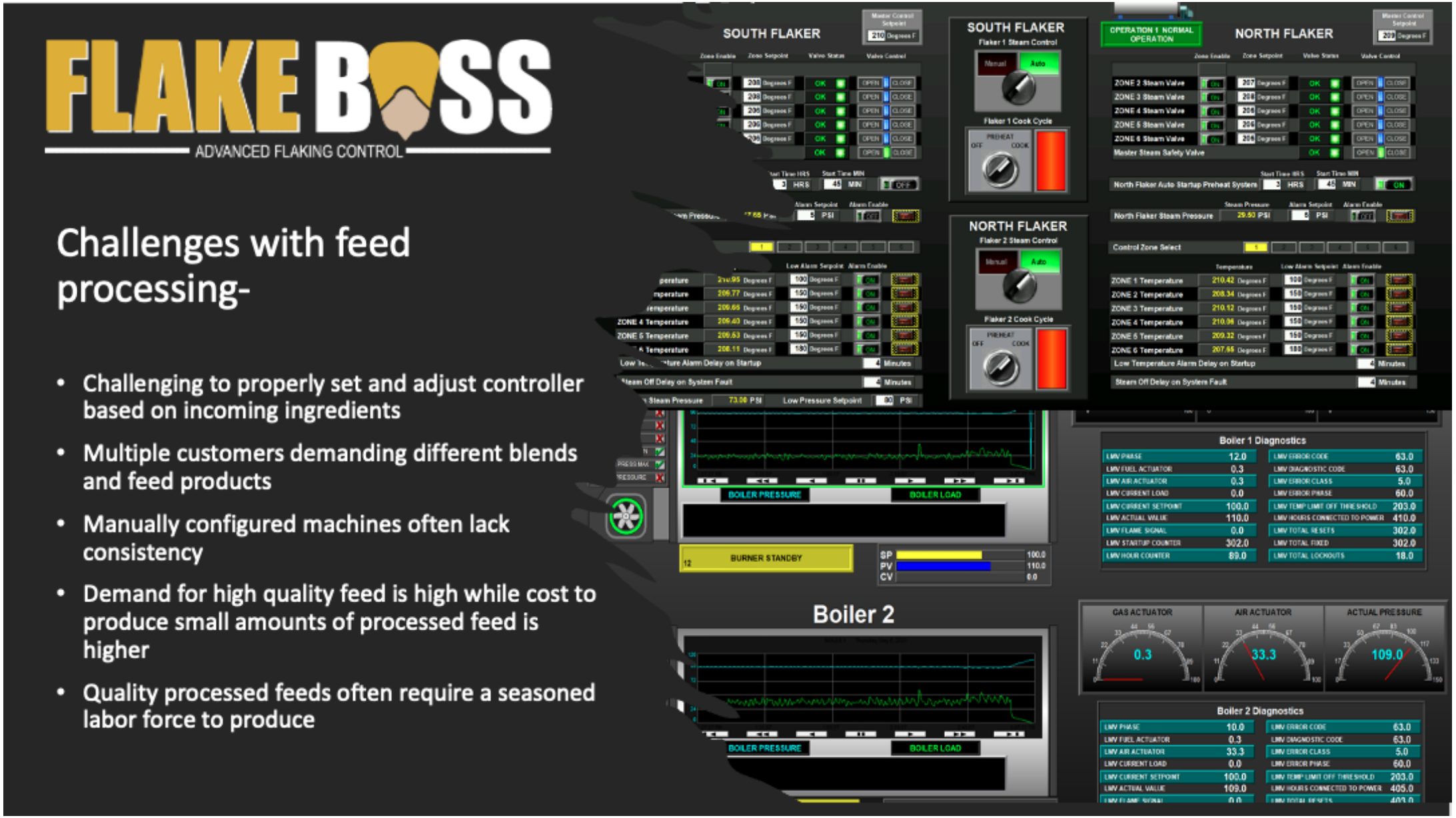
FLAKE BOSS

ADVANCED FLAKING CONTROL

Challenges with feed processing-

- Challenging to properly set and adjust controller based on incoming ingredients
- Multiple customers demanding different blends and feed products
- Manually configured machines often lack consistency
- Demand for high quality feed is high while cost to produce small amounts of processed feed is higher
- Quality processed feeds often require a seasoned labor force to produce



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FLAKE BOSS

ADVANCED FLAKING CONTROL

The bridge to profitability in feed-

- FlakeBoss platform is designed for all feed processing varieties
- Advanced ingredient control and consistency
- No additional labor force needed for quality daily output on demand
- Rapid blend change for differing customer demands
- Plant wide automation capability
- Reporting of all key data points on input, process, and delivery
- 24/7 Technical Support

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FLAKE BOSS

ADVANCED FLAKING CONTROL

More than Just Feed-

- Advance your current conveyance automation with seamless integration
- Utilize advanced hazard monitoring reporting and controls for increased safety
- Develop stronger preventative maintenance strategies with DataBoss system monitoring and reports
- Centralize plant control and maximize facility operations

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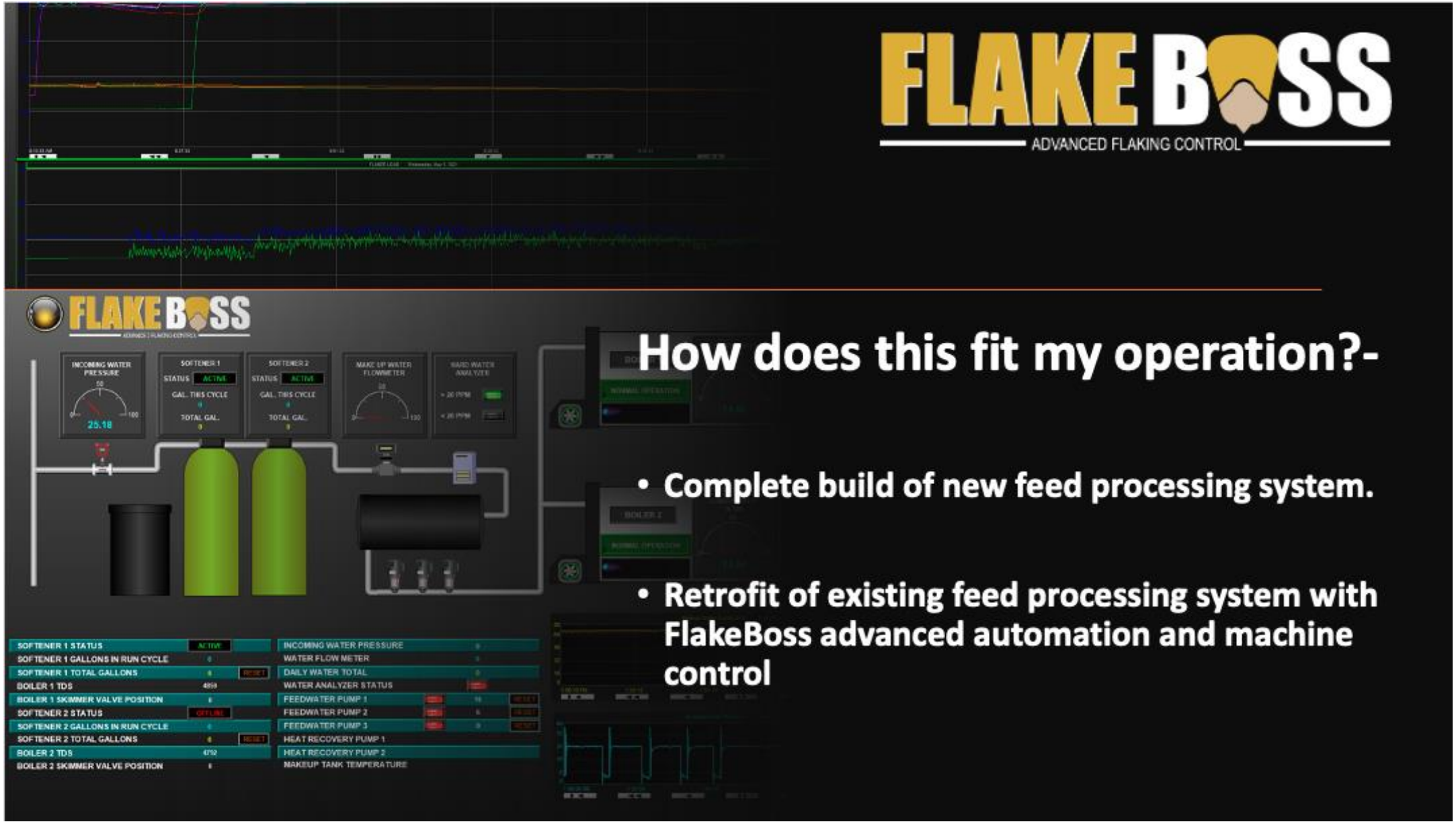

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FLAKE BOSS

ADVANCED FLAKING CONTROL

FlakeBoss Support-

- Controls and sensor support team
- 24/7 Engineering and IT Support
- Dedicated IT Support Team
- Flaking and Pellet Consulting Services
- Complete Mill Design and Build Services
- Millwright Support Team
- Roll Service Support Team
- Machine Shop Support Team

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ELEVATE®

ADVANCED BIN MANAGEMENT & COMPREHENSIVE GRAIN TRACEABILITY

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Gayle Lewis

President

AGTRAX™

GEAPS EXCHANGE PROUD EXHIBITOR

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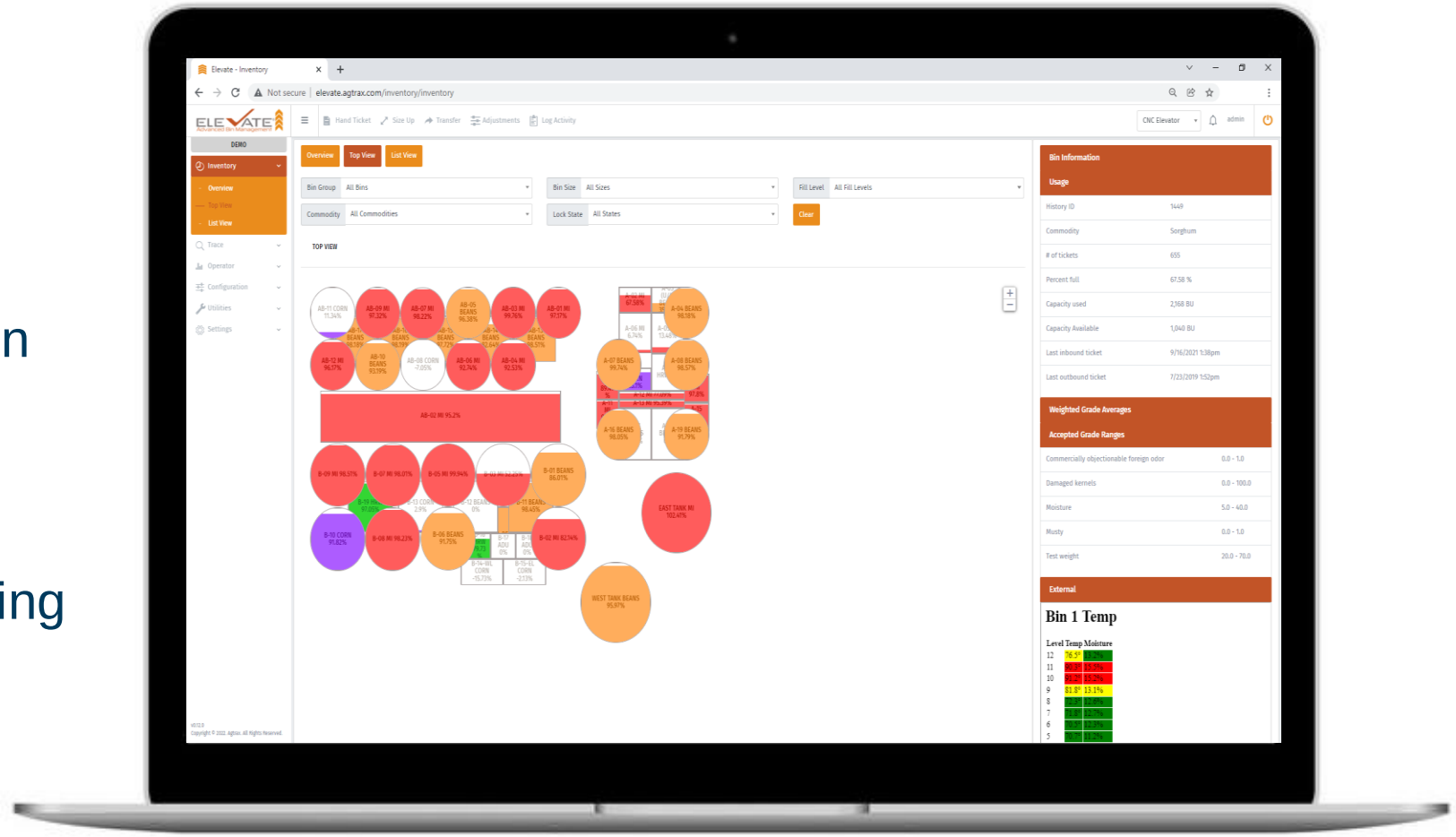
Grain Handling Problems Solved with Elevate

- Where the data originates
- Grain Levels and Quality by Organization and by Location
- Traceability of Grain
- Grain Planning
- Reporting and Record Keeping



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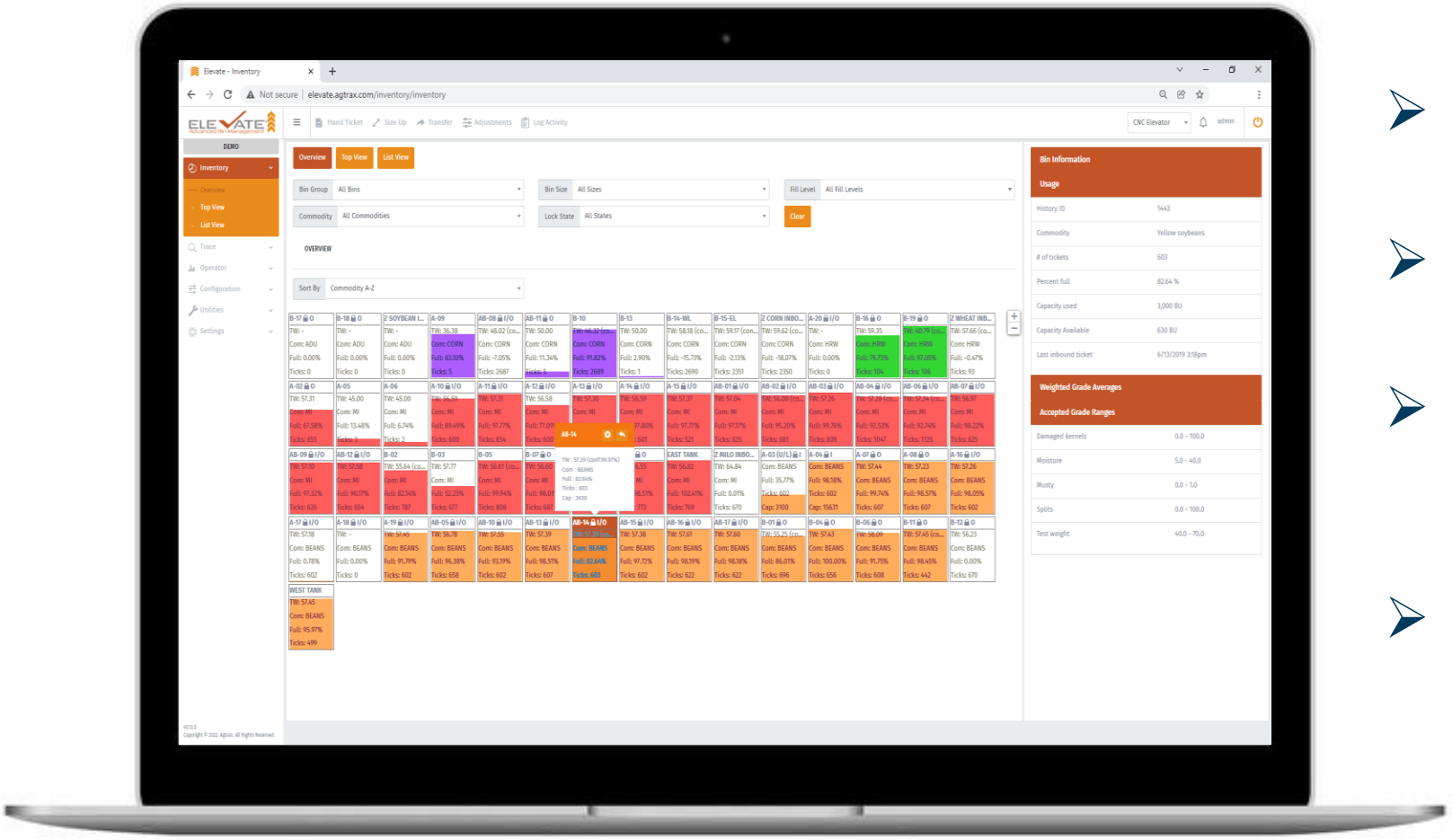
Where does the data originate and how do we update?



- Web Based & On-Premise Options
- True Open Framework to update information
- Easy upload of CSV to add tickets or to update quality factors on tickets
- 3rd Party Integrations

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Grain Levels and Quality for Organization and by Location

- View overview of All locations
- Drill into each site as well as On-Farm Storages
- View activity (Inbound and Outbound in real time)
- Monitor space by commodity

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Traceability of Grain

- Know where your grain came from
- Trace flow in both Directions

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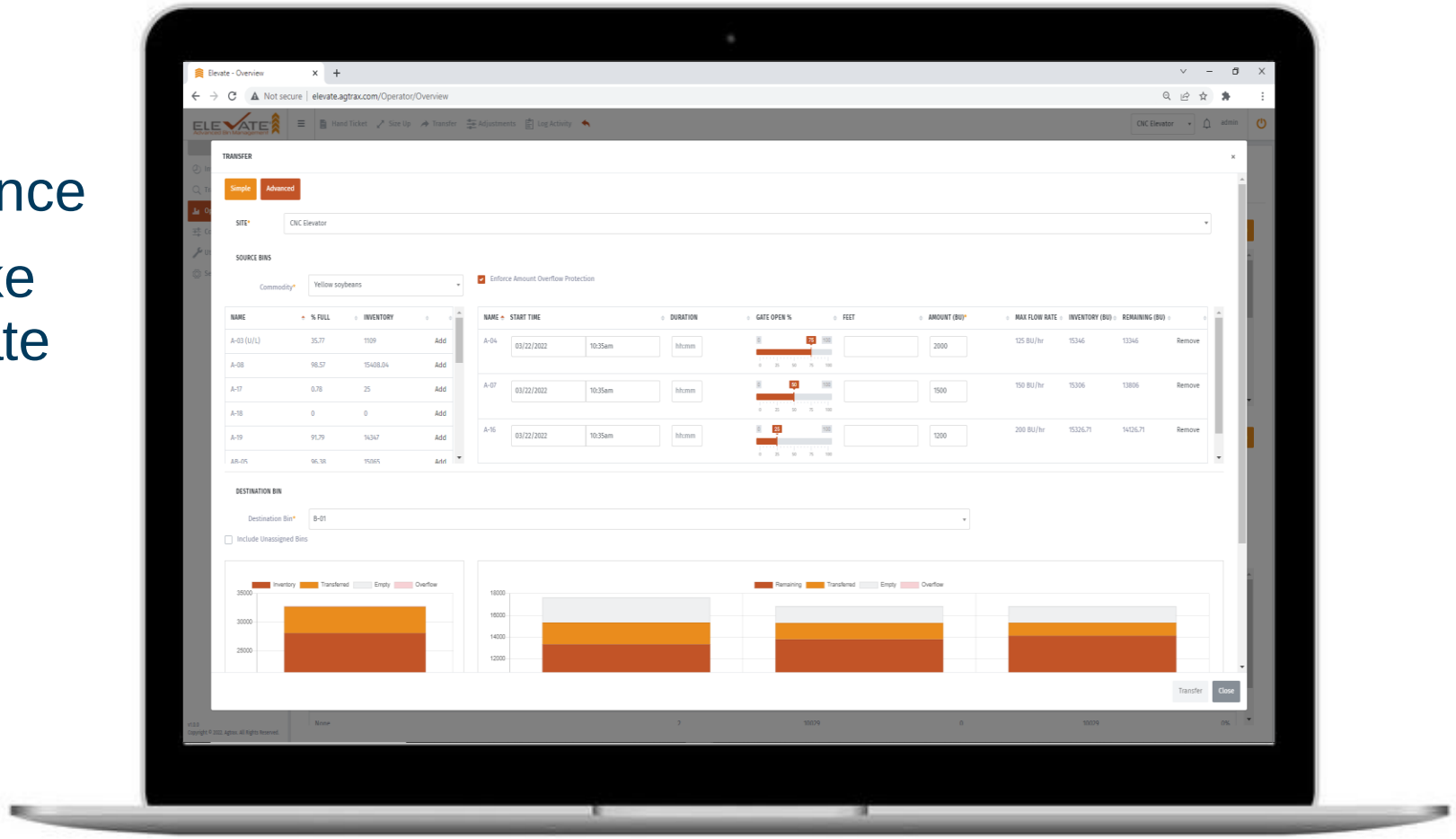
Grain Planning

- View quality factors at a glance
- Build blend sheets and make them available for the Elevate operator
- Bin to bin transfers with automation tools



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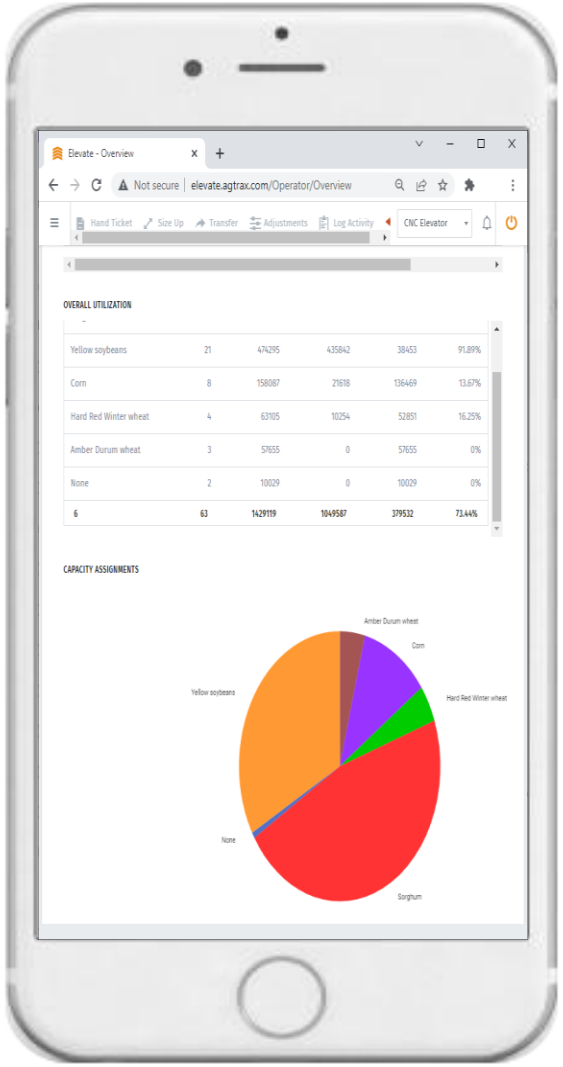
Reporting and Record Keeping

- Record Elevate activities from any internet connected device
- Drill into data for Harvest totals and compare quality factors
- View recent statistics based on activity
- Drill into Grain flows with interactive charts
- Extract data to Excel, PDF or Copy and Paste Function



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Questions?

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agtrax.com | elevate.ag | 866.360.0016

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Unloading Difficult Railcars

Safer. Faster. Easier.

PNEUMAT SYSTEMS INC.

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Sam Cebula

Pneumat Systems, Inc.

Sales Manager

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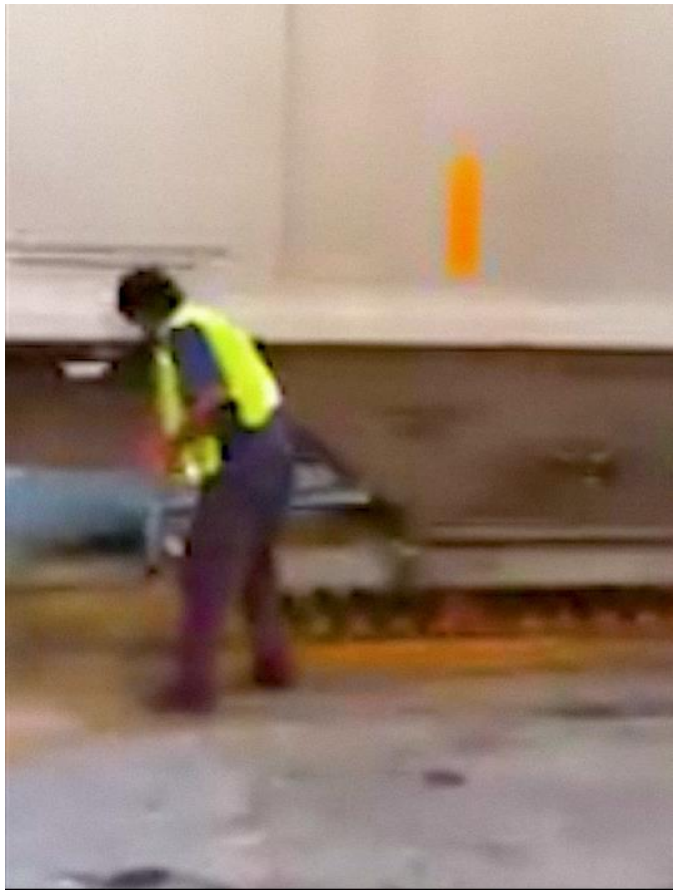
THE HARD CAR PERCUSSION ENSEMBLE



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UNLOADING @#$%&!!! RAILCARS

SAFER. FASTER. EASIER.

Sam Cebula
sam@pneumat.com
507.420.0585

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A GROWING CHALLENGE

- Employee safety
- Staffing & retention
- Production problems
- Etc...

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CLEARANCE

INSUFFICIENT HEADROOM

- ✗ Major renovations
- ✗ Cost prohibitive

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HOPPERBOT

INTELLIGENT RAILCAR UNLOADER

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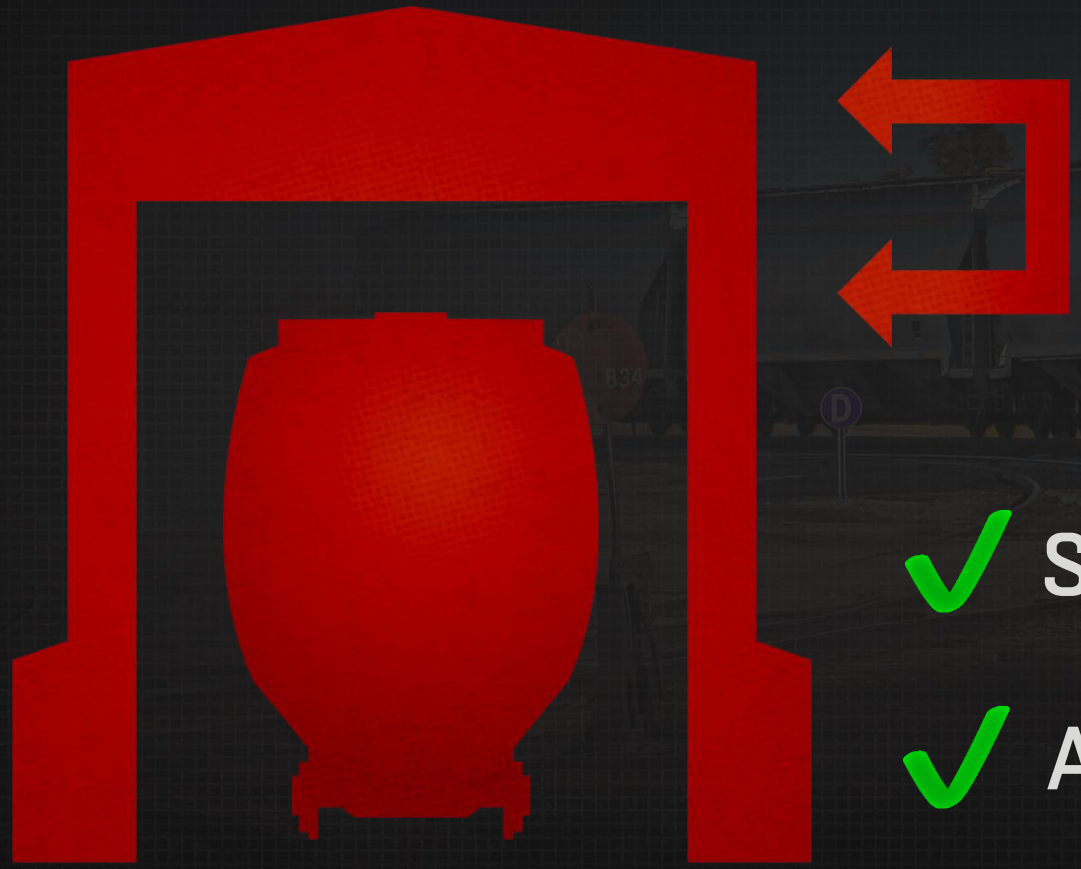
CLEARANCE



The HopperBot fits in <25 feet of headroom!

- ✓ Simplifies installation
- ✓ Affordable safety solution

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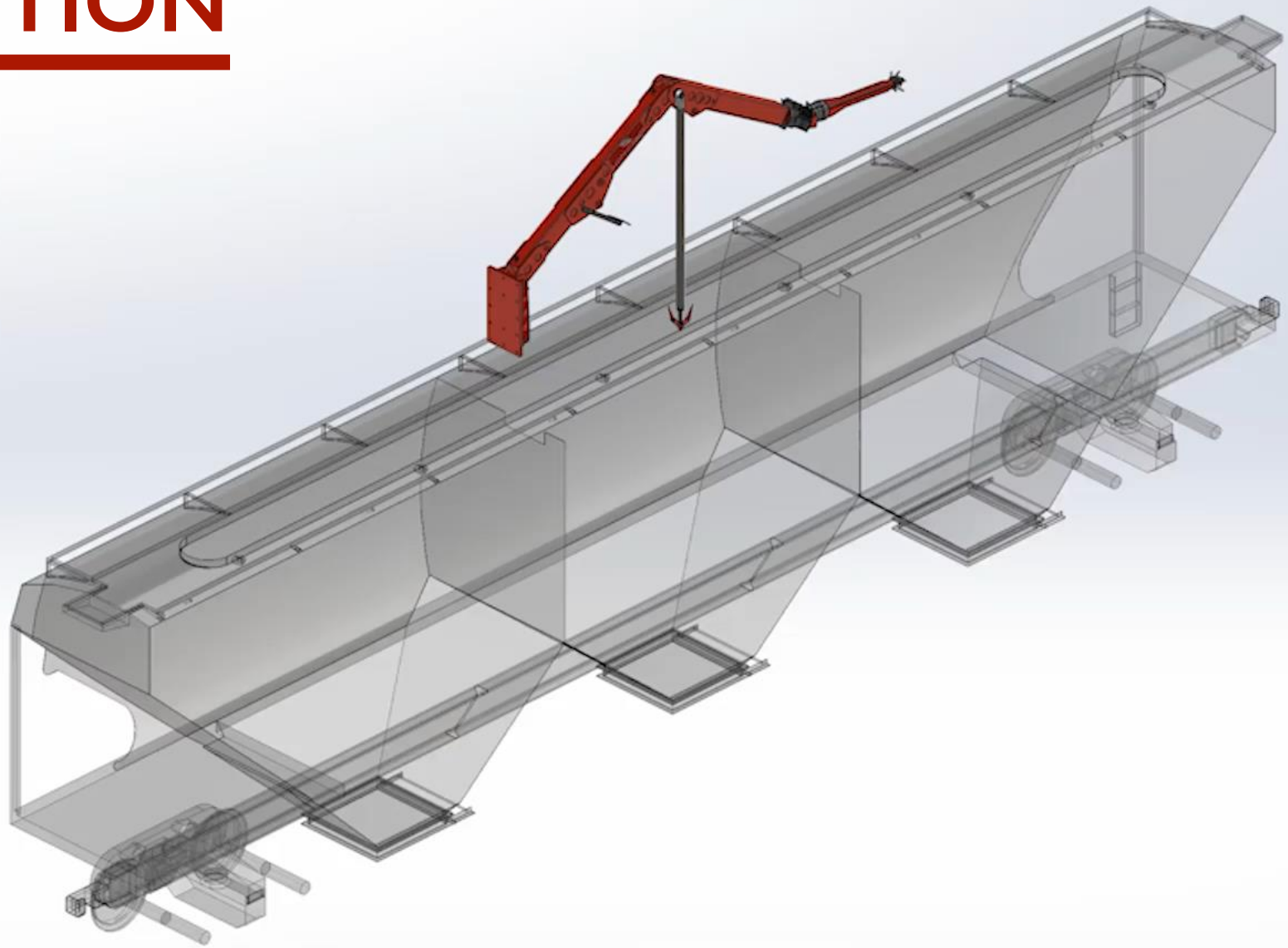
OPERATION

Coring



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OPERATION

Clearing

HOPPERBOT

INTELLIGENT RAILCAR UNLOADER

by Pneumat Systems

SAFER.
FASTER.
EASIER.

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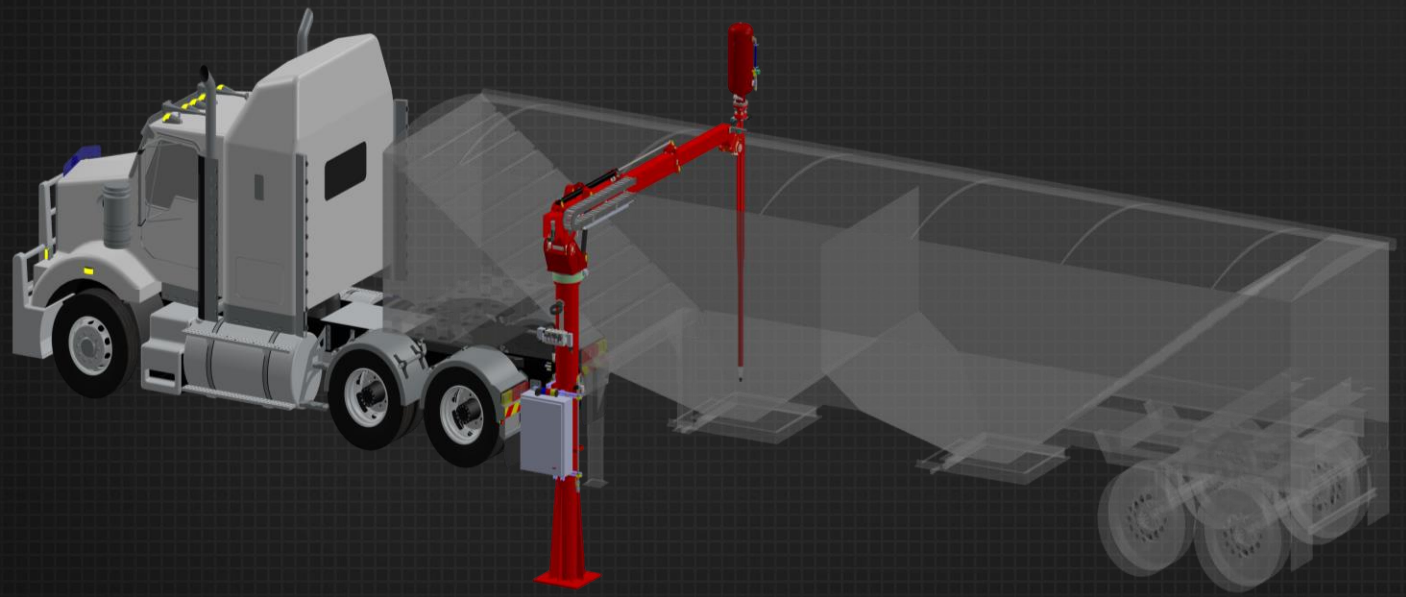
HOPPER POPPER

AIR BLASTER UNLOADER



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Sam Cebula
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How Wearable Tech is Impacting Safety

Brett Burkhart – Customer Success Lead

Exhibit Booth #2901

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Brett Burkhart

MākuSafe

Customer Success Lead

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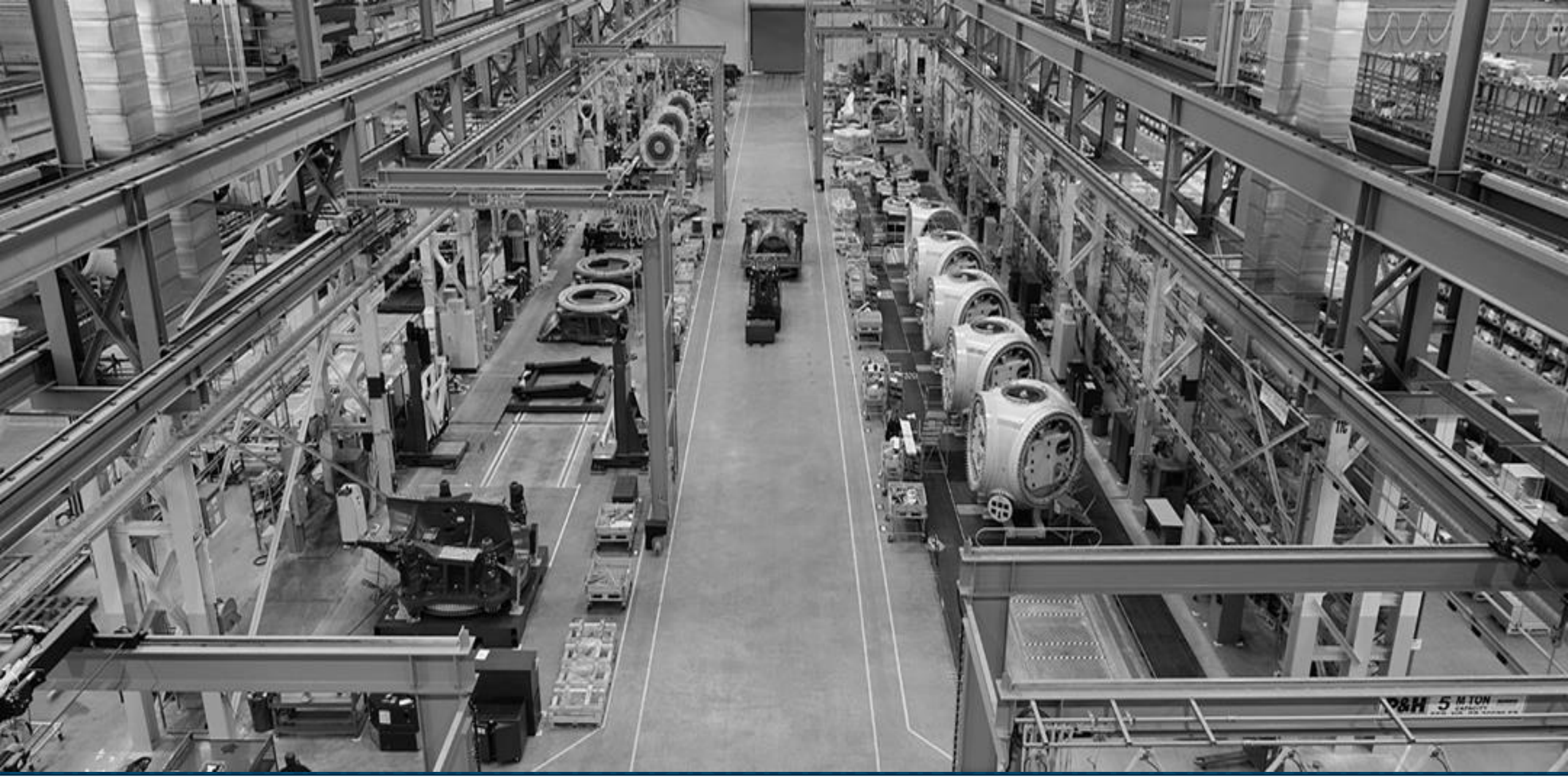

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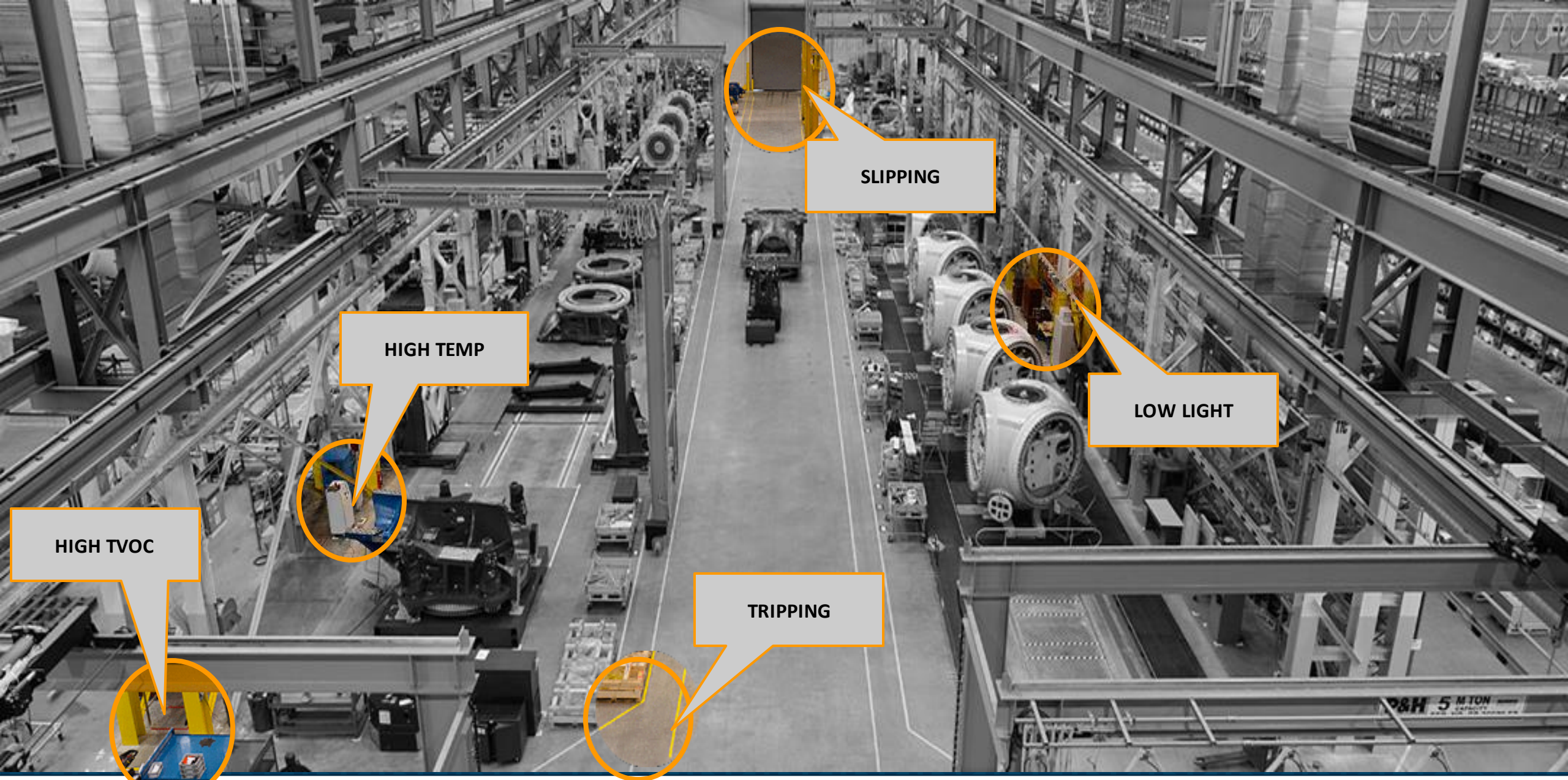

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A Sensor-Packed, Data Gathering Wearable Device

Environment

- Ambient light
- Air quality
- Noise level
- Air pressure
- Humidity
- Temperature

Voice

- Record voice message

Motion

- Slips, trips and falls
- Repetitive motions
- Worker physicality

Spatial awareness

- Indoor location
- Proximity
- Contact tracing
- Access control

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- ✓ **Reduction in Accidents**
- ✓ **Automatically Detect Real-Time Hazards & Risks**
- ✓ **SHMS (Safety & Health Management System)**

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MĀKUSAFE Booth #2901

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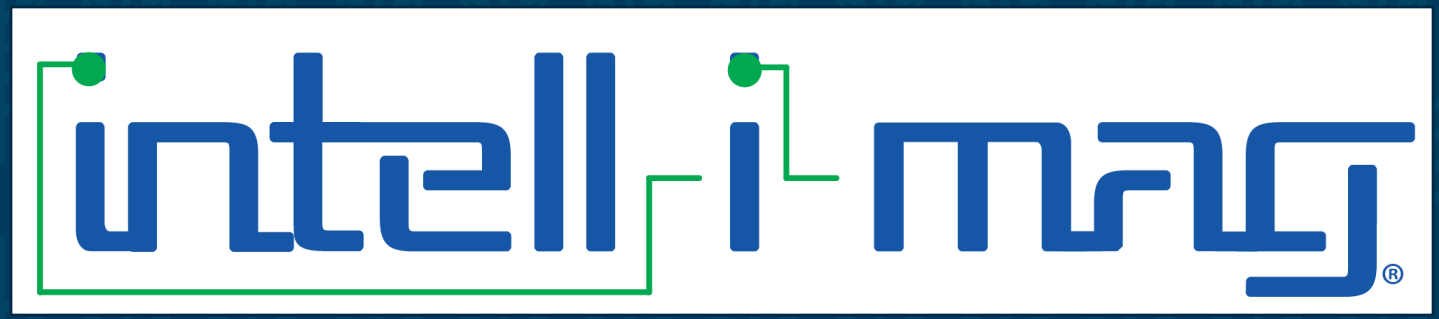
MĀKUSAFE

SMART. SAFE. MĀKUSAFE.

Visit us at BOOTH #2901



THE REVOLUTIONARY INTELLIGENT MAGNET

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Frank Reda

MPI | Magnetic Products, Inc.

Sales Manager - Americas

Magnets | Material Handling
Electronic Inspection | Service

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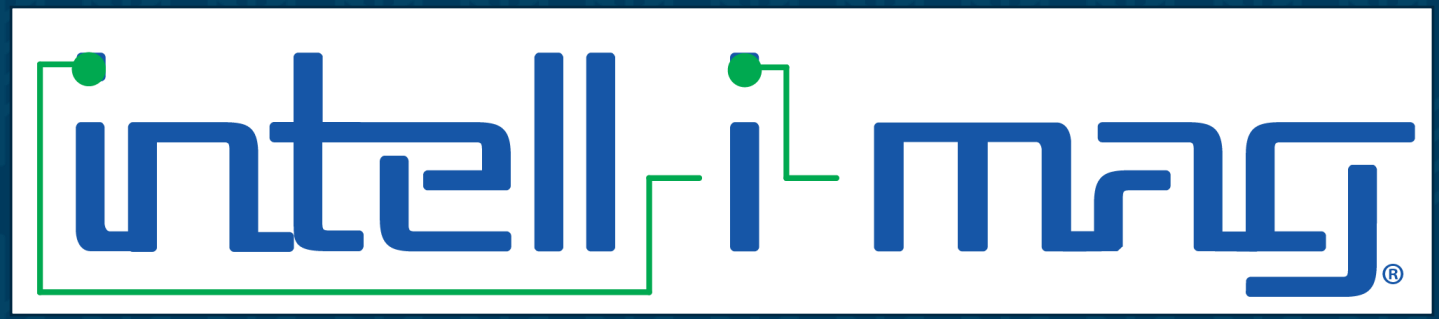

THE REVOLUTIONARY INTELLIGENT MAGNET

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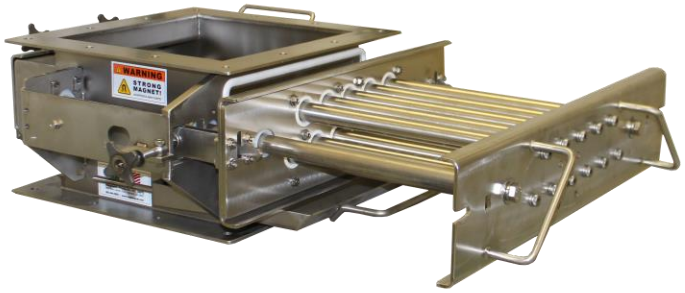
PEAK MAGNETIC PERFORMANCE
EXCLUSIVELY AVAILABLE ON MPI MAGNETIC SEPARATORS

GRAVITY BULK FREE FLOWING MAGNETS



PNEUMATIC CONVEYING MAGNETS

LIQUID PIPELINE MAGNETS

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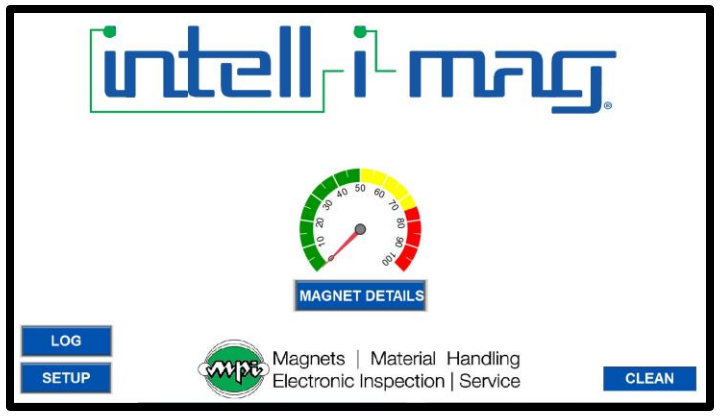
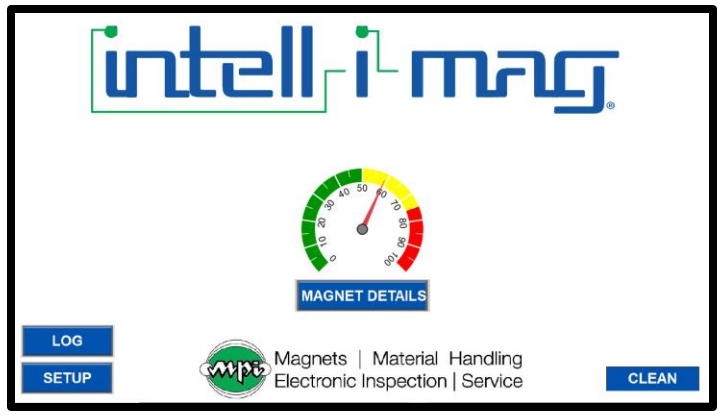
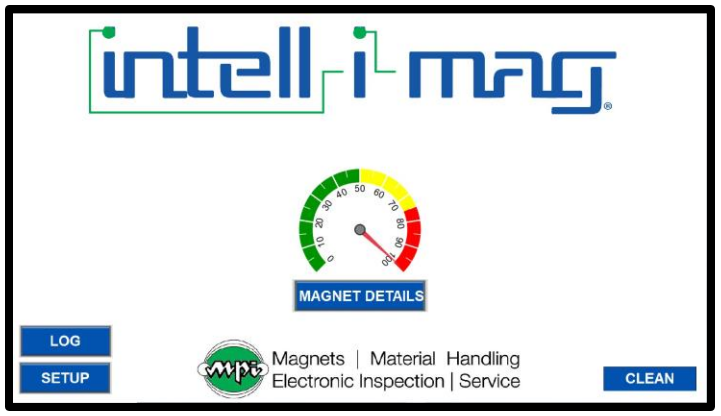
MONITORS SATURATION LEVELS IN REAL TIME







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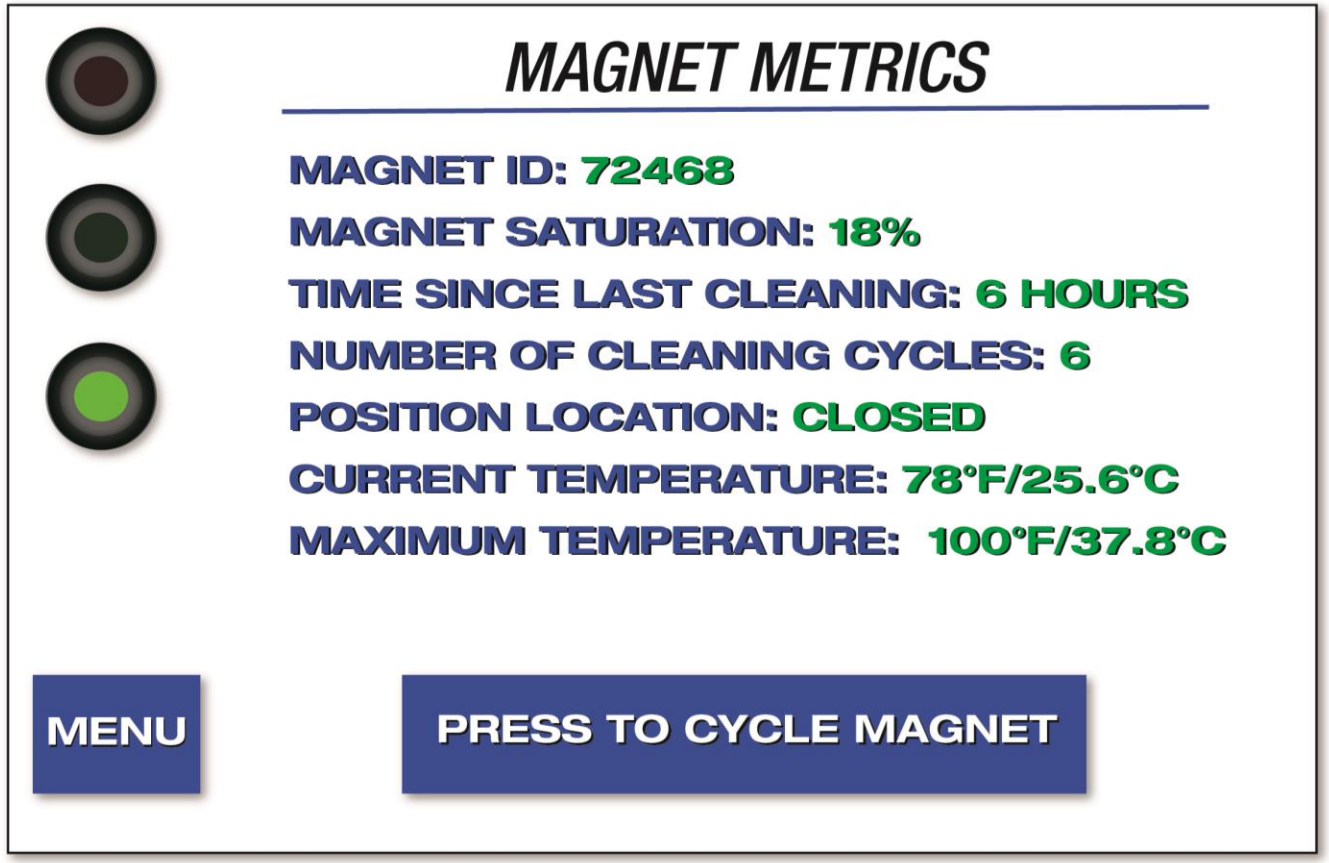
CUSTOMIZED REPORTING FOR QUALITY COMPLIANCE INITIATIVES



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INDUSTRY 4.0 READY – MAGNET METRICS CONTROLLER

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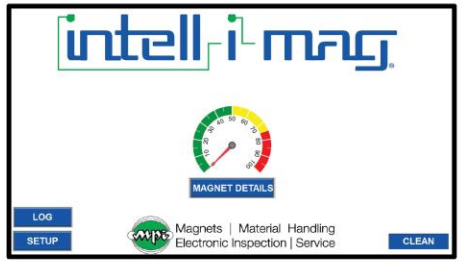
Magnets | Material Handling
Electronic Inspection | Service

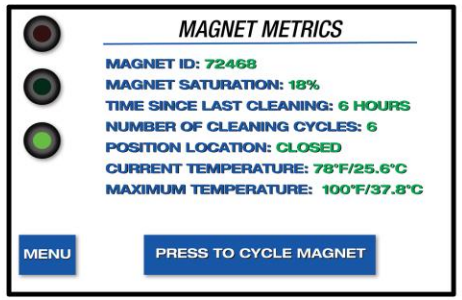
intell-i-mag Intelligent Magnets

Exclusively on MPI Magnetic Separators

Patent #10,543,492

Note: all screenshots from Intell-I-Mag® controller





Intell-I-Mag® is the revolutionary next step in magnetic separation innovation and factory automation. It's the first intelligent magnet to self-monitor ferrous metal saturation in real-time and log system data. Intell-I-Mag® monitors ferrous contamination of incoming ingredients, detects equipment malfunctions before scheduled cleanings, ensures fully saturated magnets are cleaned before metal events occur, reduces shutdowns for premature magnet cleaning, and ensures the separator is always working at peak performance, capturing weakly magnetic materials such as work-hardened stainless.

Real Time Monitoring for Peak Magnetic Performance

- Internal sensors monitor tramp metal saturation levels and alert staff before an incident can occur. Once a magnet reaches the designated level, it notifies plant personnel of required cleaning or can activate the automated self-cleaning system.
- Improve oversight of vendors during material unloading, resulting in earlier metal detection and a reduction in damage to the production process.
- Avoid challenges caused by equipment failures, inadequate magnet cleaning intervals or inaccessible equipment.

Saturation Level Indicators

- As captured metal increases and magnetic performance decreases, LED indicators signal separator saturation:
  Green - separator is operating at peak performance
  Yellow - separator is near 50% saturation
  Red - separator is 100% saturated, cannot retain additional tramp metal, and needs cleaning immediately
- Alert limits can be set by designated personnel and password protected.

Customized Reporting for Quality Compliance Initiatives

- Data collection improves analysis of magnetic separator performance, including magnet saturation, cleaning alerts, temperature monitoring, cleaning cycles and position location.
- Operators can establish a higher level of metal control and create a stronger quality management plan for programs such as HACCP, ISO, BRC, IFS and SQF.

Industry 4.0 Ready - Magnet Metrics Controller

- The Industry 4.0 compliant PLC controller allows for communication between controller and network for remote magnet monitoring and control.

Built for the Harshest Environments

- Controllers are rated for appropriate installation environments, including liquid tight for washdown and hazardous classified locations.

Magnet Status - Saturation Levels

**Specifications subject to change*

MPI | 683 Town Center Drive, Highland, MI 48356
1.248.887.5600 | info@mpimagnet.com | www.mpimagnet.com

intell-i-mag

Controller Options

Feature	Option
Target Metal	Fines, medium or large
Interface	7" HMI touch screen standard, larger screens available as well as remote interface
PLC Controller	MPI standard included, Allen Bradley and Siemens available
3 Color LED lights indicating level of metal build up	Included
Available Inputs	Clean magnet
Available Outputs	Magnet Saturation % Last Cleaning Cycle Time # of Cleaning Cycles Temperature Position Confirmations
Panel Rating	NEMA 12X, NEMA 4X
Controller / Magnet Connection	Standard network cable with RJ45 Cat 5 connectors

Intell-I-Mag® Controllers are Available for Most MPI Magnetic Separation Products

Gravity Bulk Free Flowing Magnets	Pneumatic Conveying Magnets	Liquid Pipeline Magnets

Intell-I-Mag® Frequently Asked Questions

Can I add Intell-I-Mag® to my existing MPI magnetic separator?
The Intell-I-Mag® intelligent magnet controller is only available with new magnetic separation systems and cannot be retrofit.

How many Intell-I-Mag® magnetic separators can one controller manage?
Each Intell-I-Mag® controller is designed to manage one magnetic separation system.

What is the maximum distance between the controller box and magnetic separator?
The Intell-I-Mag® controller uses standard CAT5 Ethernet communication and can be located up to 1,500 feet away from the magnetic separator, if required.

Will the Intell-I-Mag® system be suitable for high pressure wash down applications?
The Intell-I-Mag® system can be rated NEMA 4X for wet applications or where high pressure wash down is required.

Is the Intell-I-Mag® system rated for hazardous locations?
The Intell-I-Mag® system can be rated for a required hazardous location.

What is the Intell-I-Mag® warranty?
MPI extends our standard warranty on the Intell-I-Mag® system.

Can I place my order(s) now for the Intell-I-Mag® intelligent magnet controller?
Yes, MPI is now taking orders for Intell-I-Mag® magnetic separation systems. Please contact MPI for a quote for your application.

**Specifications subject to change*

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1.248.887.5600 | info@mpimagnet.com | www.mpimagnet.com

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To Learn More Come Visit MPI in Booth 1401

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Traceability and Digitization

How Digitization and Blockchain Technology is Opening Doors for Bulk Commodities

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Peter Oram

Grain Discovery

Chief Operating Officer

GRAIN DISCOVERY

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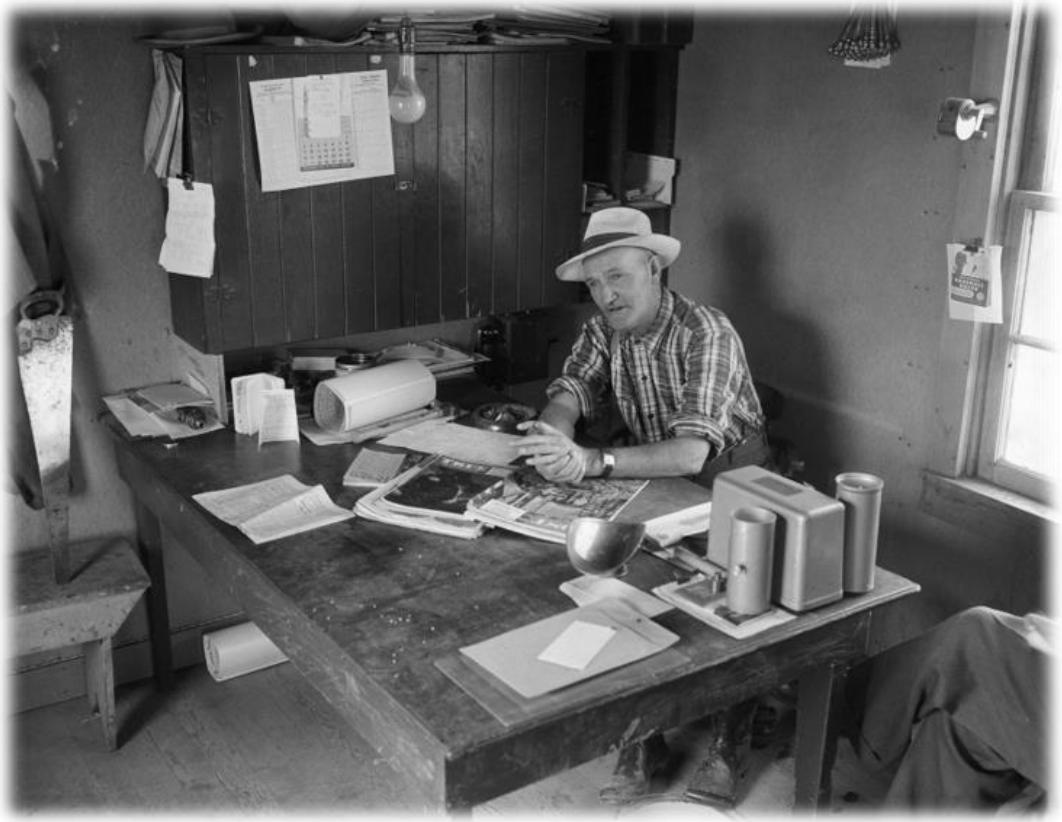
how we have marketed grain has seen minimal technological advancements relative to the rest of the agriculture industry

GRAIN DISCOVERY



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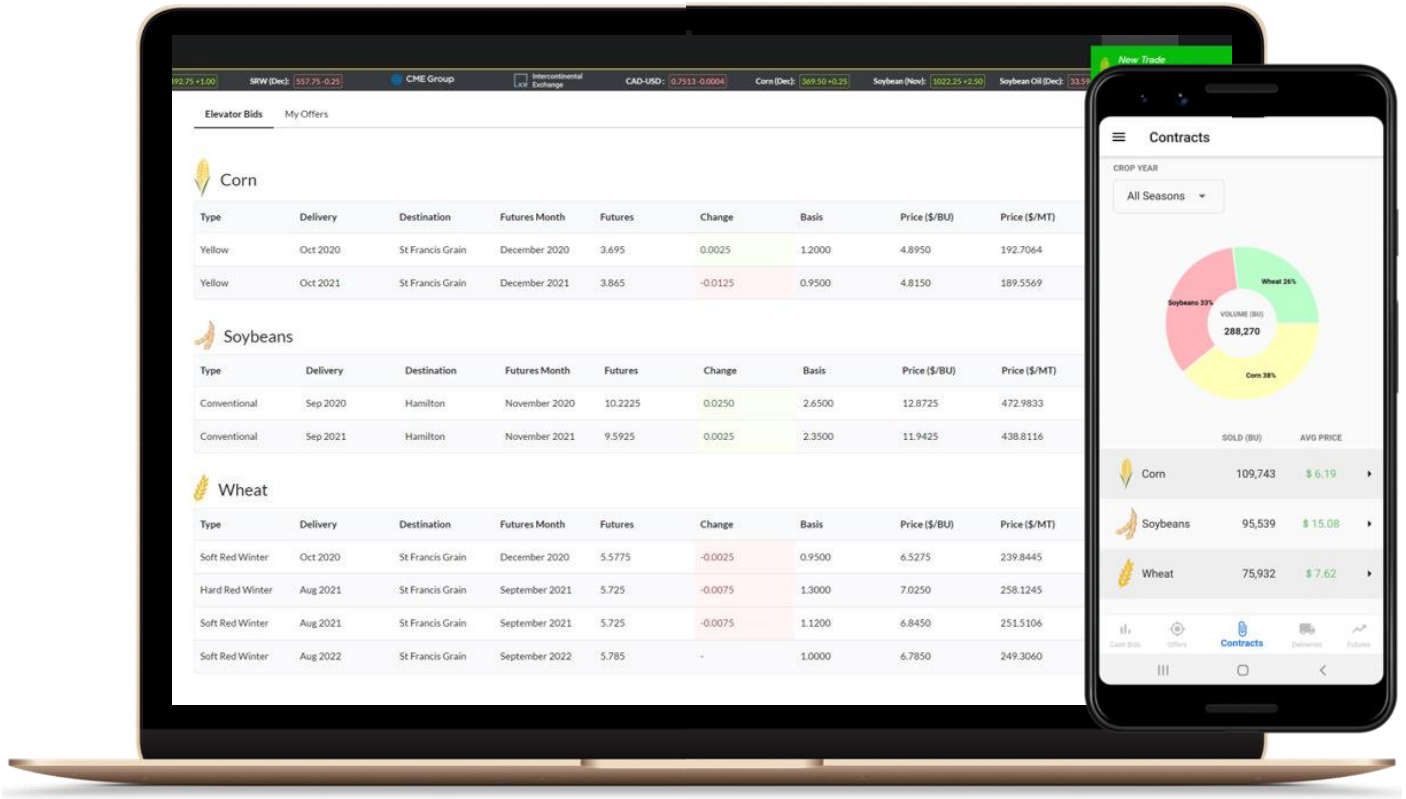
GRAIN DISCOVERY

Digitizing Grain Origination

Improved customer experience

Saving you time

Privately branded environment



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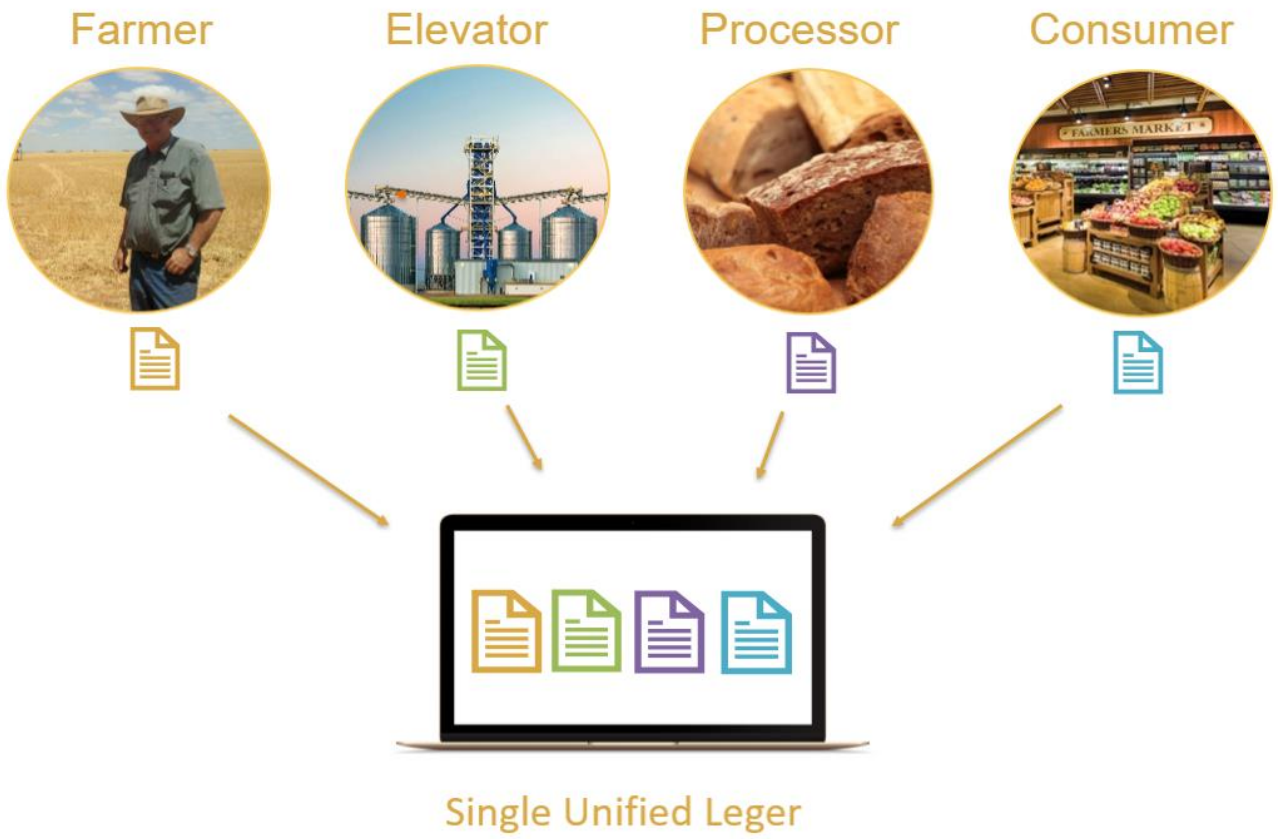
GRAIN
DISCOVERY

Bulk Commodity Traceability

Digitizing the Supply Chain

Connecting existing data sets

A single unified leger using blockchain



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Thank you!

Contact Information

Peter Oram

705-309-1977

poram@graindiscovery.com

www.graindiscovery.com

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TotalHub Data Management

Envirologix

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Mark Enninga

Envirologix

Territory Manager

ENVIROLOGIX

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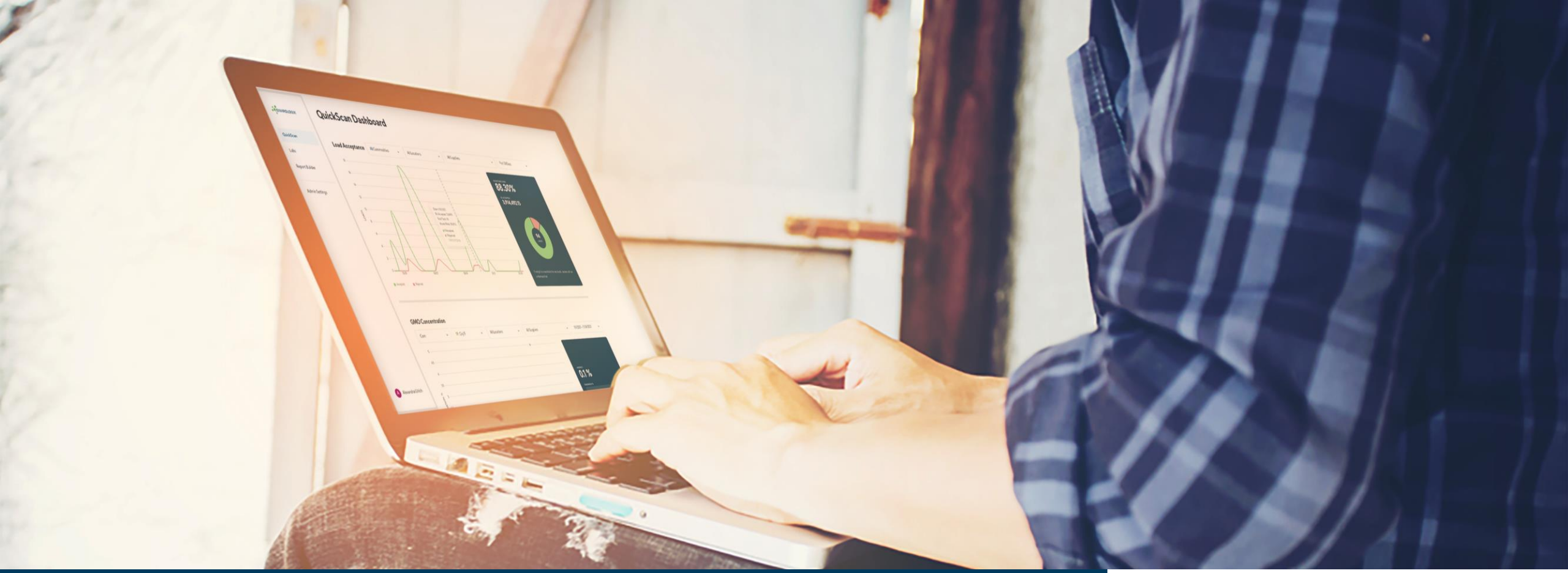

TotalHub Data Management

Centralized Data, Actionable Insights

TotalHub DATA MANAGEMENT

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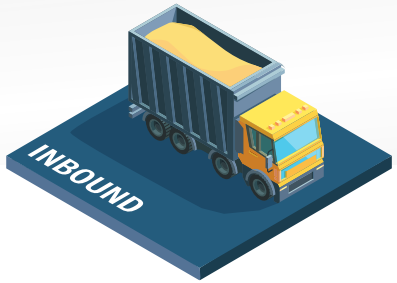
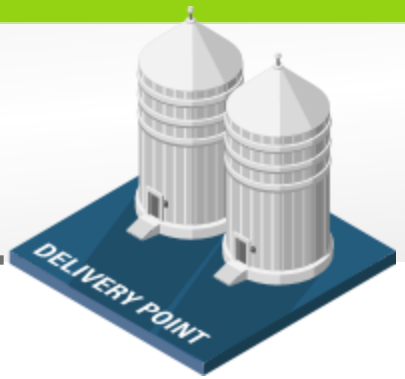
EnviroLogix Grain Testing Solutions

Diagnostic Support at Every Step

ENVIROLOGIX





TotalTrait

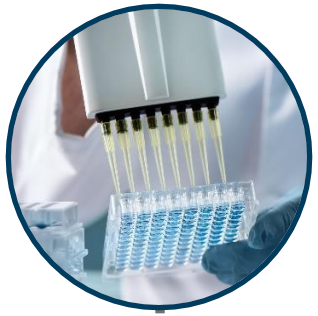
LFD GMO TESTING

TotalTarget

LFD ENOGEN & ALLERGENS TESTING

TotalTox

LFD MYCOTOXIN TESTING



TotalTest LAB SERVICES

PCR GMO LAB TESTING

- ISO 17025-accredited
- Non-GMO Project Approved

Lab Services for Mycotoxins available in 2022

QuickScan

TEST PLATFORM

TotalHub DATA MANAGEMENT

DATA MANAGEMENT

Centralized, cloud-based data and quality management portal

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TotalHub – Centralized Data, Actionable Insights

Example applications from early adopters

ENVIROLOGIX

1

Evaluate Mycotoxin Risk Level

- ✓ Real-time oversight of mycotoxin test levels by location
- ✓ Adjust testing protocols to respond to outbreaks

2

Improve Merchandizing Power

- ✓ See rejection levels to determine position at-a-glance
- ✓ Reward and retain highest quality growers

3

Faster, Easier Audit Prep

- ✓ Download all test data
- ✓ Easily compile and share detailed reports

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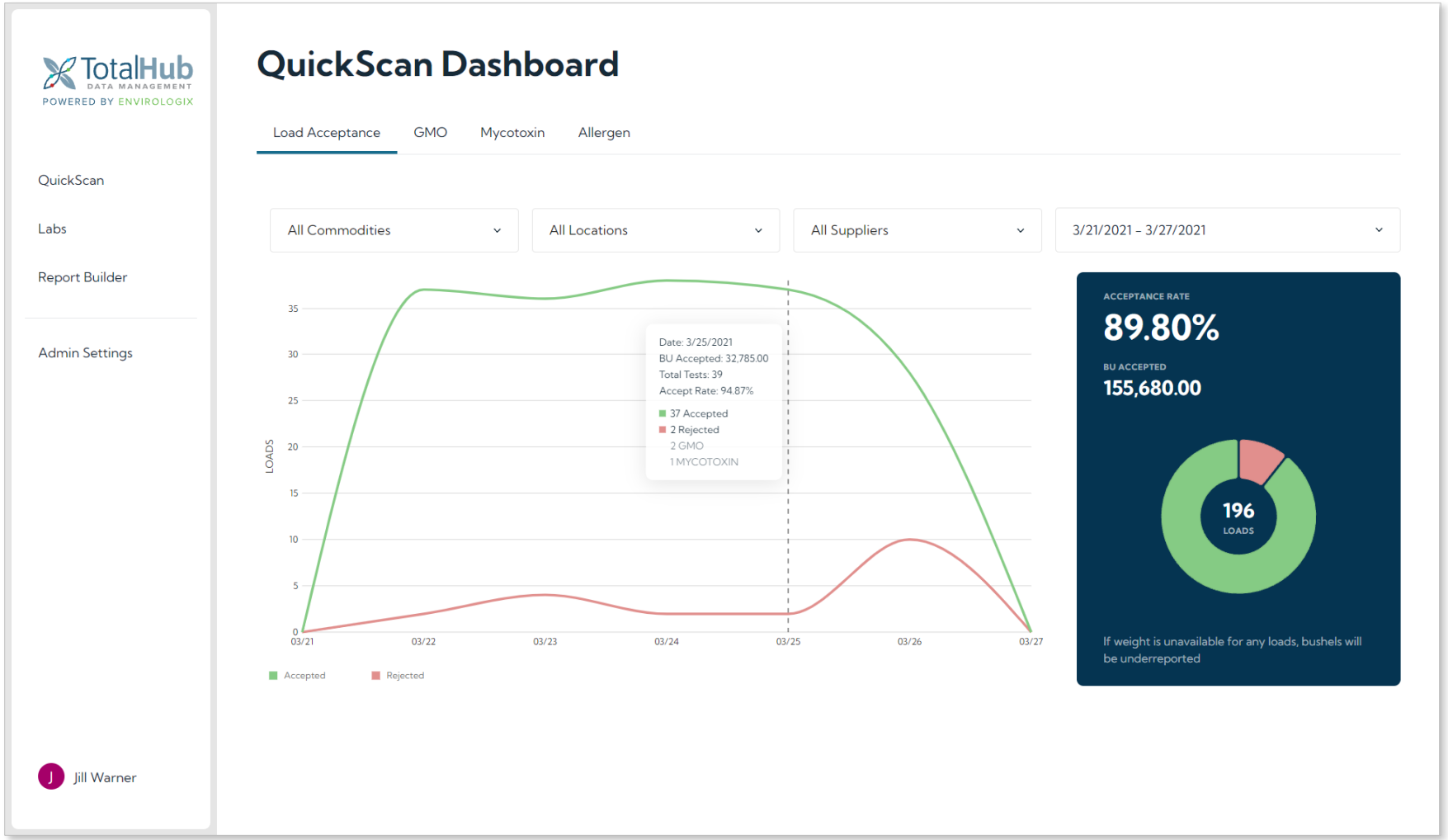
Meet TotalHub

Cloud-Based Data Management, Software Updates & more

Ag Diagnostics has never been easier!

- Cloud Based, user-friendly, secure and customizable portal.
- Enable your teams to manage everything in one workspace.
- Quality data ready for audits, customer reports, and operational efficiency.

Stop by booth #2013 for a demo



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Small Changes, Big Impact!

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Using What You Have

Solentra

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Allan Venters

Solentra, Agris - OneWeigh

Facility products manager

solentra
a CULTURA company

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Innovation = Need

- Is there a problem/hold up?
- Where
  - Accounting
    - Information given or received
    - Any hand entry
  - Facility
    - Apply to contract
    - Probe, Scale or Pits
    - Bin assignment

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Review current processes

- Are we collecting any paper?
- Why – BOL, origin ticket?
- What is done with it?
- Are we already providing the information?

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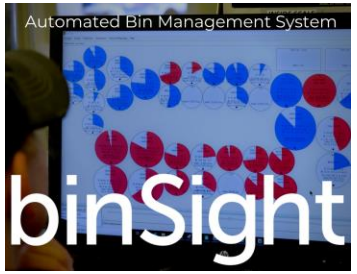
Look at what you might have

Plant Control
Bin Level
Temp Probe
Moisture
Shipping

AGRIS

oneWeigh



oneFreight

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What is the problem we are trying to Solve?

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Faith Technologies

Energy Management

FAITH TECHNOLOGIES®

A DIVISION OF FTI

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Matt Zabel

Faith Technologies

System Architect

FAITH TECHNOLOGIES®

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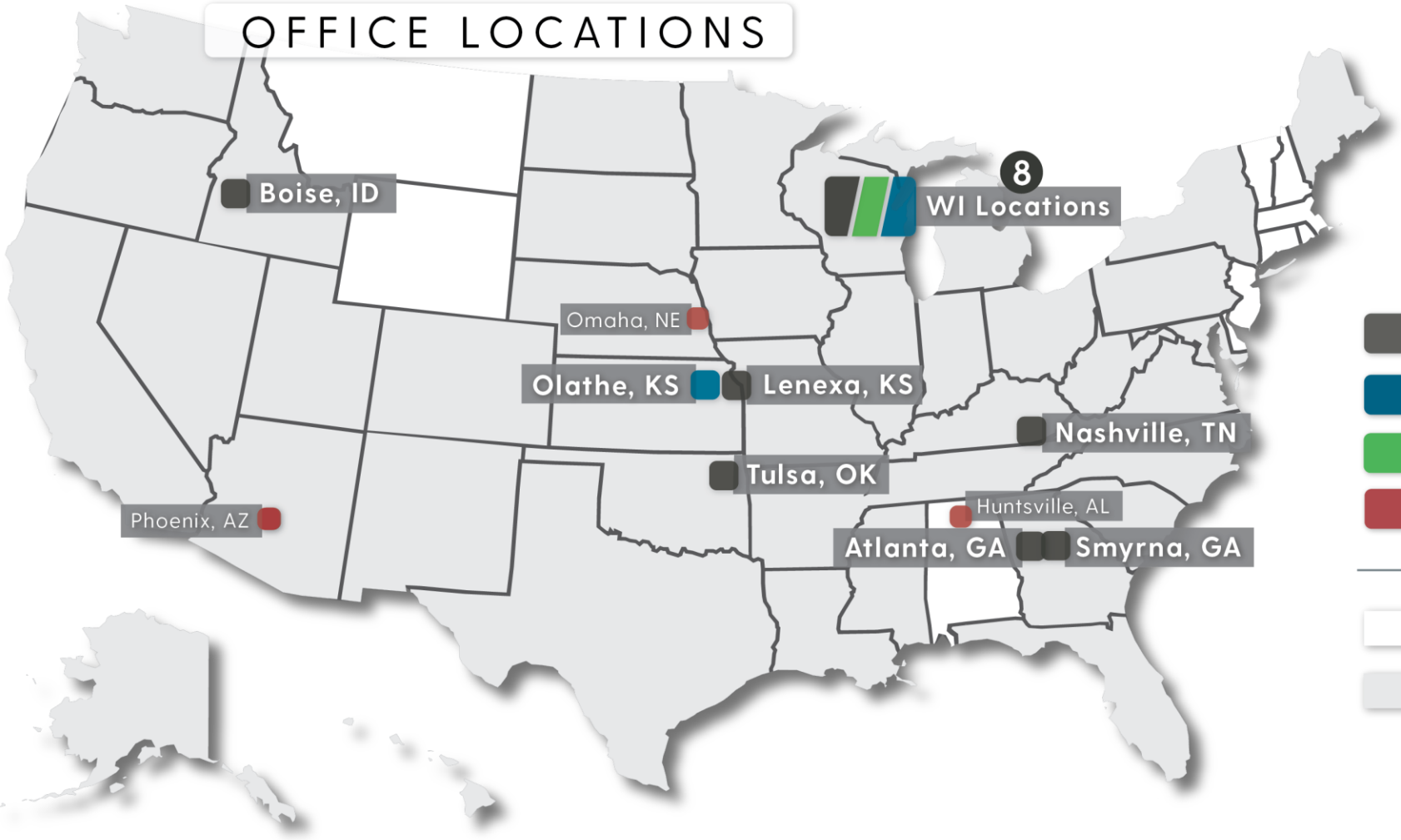
FAITH TECHNOLOGIES | excellerate | EnTech SOLUTIONS

OFFICE LOCATIONS



- **Faith Technologies Locations**
- **Excellerate Locations**
- **EnTech Solutions Locations**
- **Satellite Locations**

- Licensed to perform electrical work
- Ability to complete design work and licensed to perform electrical work

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Who is FTI (Faith Technologies Inc.)?

OUR BRANDS AND CAPABILITIES

FAITH TECHNOLOGIES

- Preconstruction
- Construction
- Digital Power Solutions
- ICIANS™ (Technicians)

excellerate®

- Construction Manufacturing
- Skidded & Modular Solutions

ENTECH™ SOLUTIONS

- Asset Management
- Distributed Energy
- eMobility Infrastructure
- Sustainable Fuels

50TH

FAITH TECHNOLOGIES INCORPORATED

1972 | 2022

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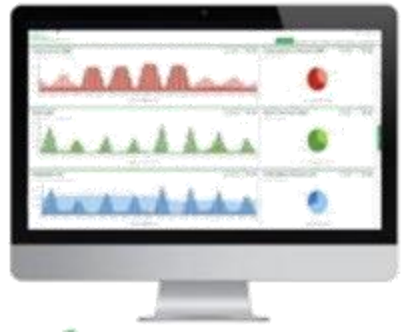
What can Energy Management tell you?

- How much energy am I using in various parts of my facility and when?
- Where can I expand with my existing electrical equipment?
- How much gas or electricity do I use per 10,000 bushels? Weather?
- Why did that breaker trip? What did it see? How much life is left in it?
- Why caused the brown out yesterday? Was it us or the utility?
- Might the utility be in error in the amount they are billing us?
- How much energy do you need to invest in a renewable energy system that meets your company's sustainability goals?
- Are there issues with my site electrical that could
  - Cause downtime?
  - Ruin drives, motors or other expensive equipment?



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Why is Energy Management important?

An Energy Management System can help you:

- Optimize your energy usage
- Reduce unplanned outage occurrences
- Drive company sustainability goal with real measurements
- Protect your electrical equipment (and people that use it!)

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What are we going to cover tomorrow at 9:00 AM?

- Electric & Gas Bill overview
- What is a good starting point for an EMS at a grain facility & why?
  - What are the pieces and what do they do?
  - Options for cost effective retrofits
  - What does the user interface give you?
- Further discuss problems that you can solve with the information form an EMS
- What to do if you find or suspect bad power quality?
- Energy management system payback

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For those of you that can’t attend

While I’m here at GEAPs, if this is something you are interested in, I am happy to:

- Talk about your facility’s needs
- Conceptualize a system for your facility
- Create budgets / Estimate ROI
- Show you a few live systems so you can see what they look like

matt.zabel@faithtechinc.com

920-740-5155

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Download the "*GEAPS Exchange*" app to take the session survey.

Share on Social!

#GEAPSExchange

Wifi Network: GEAPS2022 Password: Exchange92

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