



JOY MINING MACHINERY  
A Joy Global Inc. Company

# **Integral Dust and Noise Solutions on Continuous Miners**

**SACEA Technical Symposium  
12 April 2007**

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# Drivers of Integrated Dust & Noise Solutions

- “Health & Safety’s Enemy #1”!
- Silicosis & coal dust - no new cases reported
- Noise - below 110dBA (85dBA = target)

## • Dust & Noise - OHS targets & milestones for 2013

### **Workplace:**

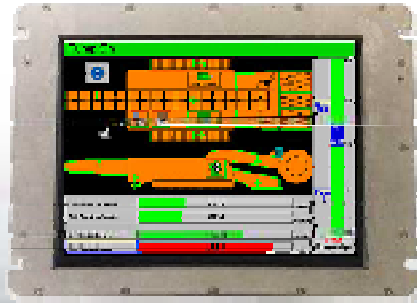
**increased safety, health & productivity with reduced people in the face/stope through mechanization, control & automation**

## • Continuous productivity improvement

- More continuous mining
- Lower cost-per-tonne over life cycle
- Convert standing time to production time
  - Training & skills development



# Joy Global Technology at Work



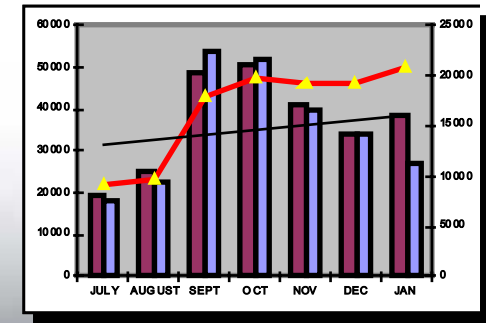
- Control & Automation



- WetHead



- OPTIDRIVE<sup>®</sup>



- FACEBOSS<sup>®</sup>





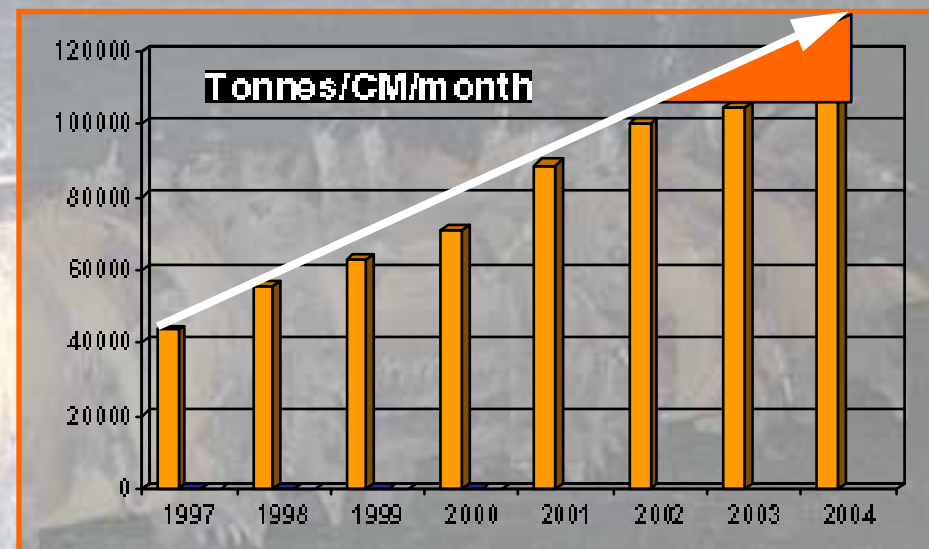
# Increasing Coal Cutting Productivity

12HM31B MkII  
3.3kV



- High sustainable production
- 3.3kV cutting system
- Faceboss on-line comms
- Common major subs

12HM31B  
950V





# Integrated Dust & Noise Solutions

*JOY WetHead - kills dust at source!*

## Addressing Enemy #1!

- **Respirable dust consistently below 2mg/m<sup>3</sup>**
- **Minimizes risk of methane ignition**
- **Enhanced visibility - safe and productive machine operation, increased section morale**
- **Increased pick life - more efficient cutting, less change-out time**
- **Robust J35 cutting system**

Continuous Miner Operator:  
**“Excellent visibility,  
more in control”**

Shuttle Car Operator:  
**“Very little dust  
during loading”**



# Integrated Dust & Noise Solutions

*JOY WetHead - also reduces noise!*

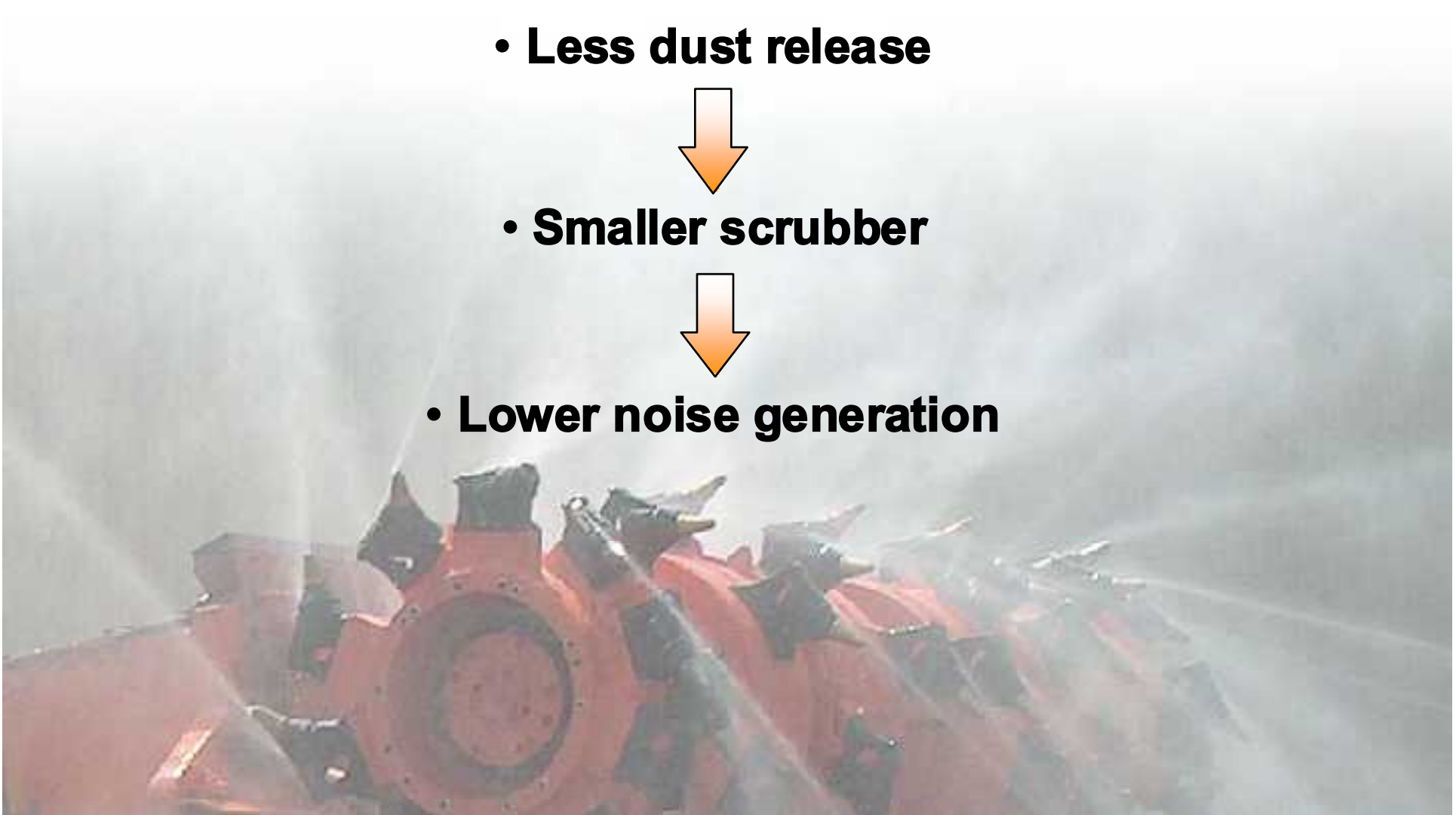
- **Less dust release**



- **Smaller scrubber**



- **Lower noise generation**

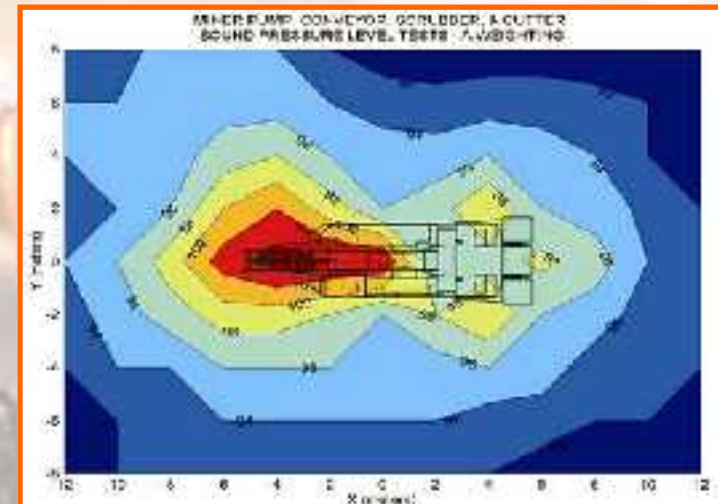




# Integrated Dust & Noise Solutions

## Reducing conveyor noise

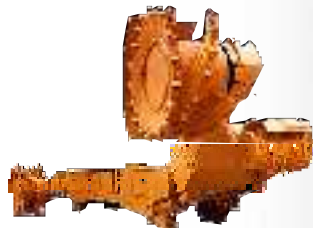
- Noise reduced conveyor chain
- Conveyor deck treatment
- Conveyor speed
- Other possible solutions





# FACEBOSS Surface Reporting

**FACEBOSS<sup>®</sup>**



- 24/7 machine data to surface
- Adding value to surface data
- Report customization to suit specific customer requirements



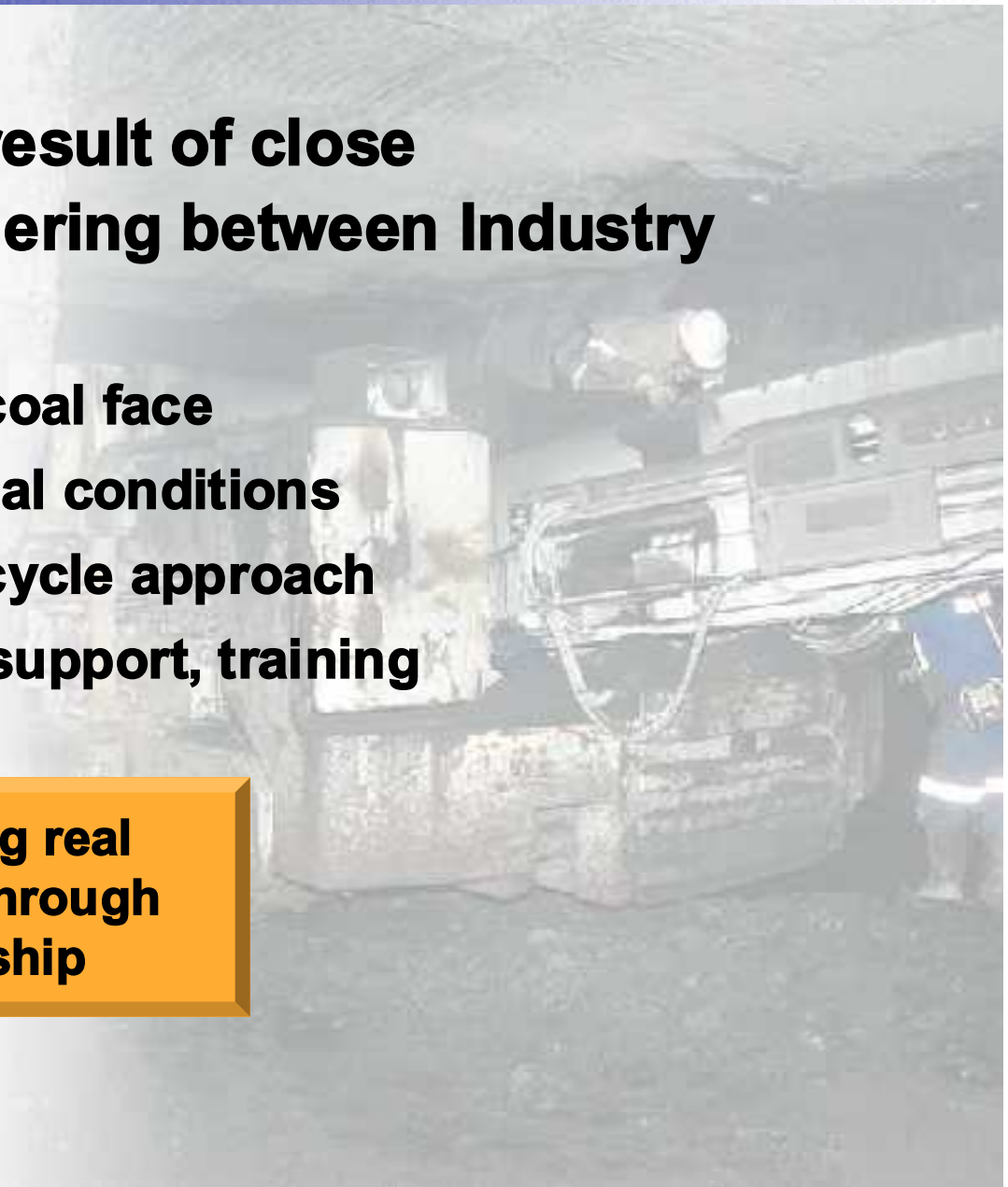


# **JOY Real Solutions Through Collaboration**

**Real solutions are the result of close collaboration and partnering between Industry and Joy:**

- **The real test is in the coal face**
- **Prove under operational conditions**
- **Test the complete lifecycle approach**
- **Equipment, logistics, support, training**

**Generating real solutions through partnership**





**Thank you**