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WHY A ONE-SIZE-FITS-ALL SOLUTION

COULD HAVE
RUINED
EVERYTHING



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PROBLEM



Risk of **explosion** and **personal injury** if the pneumatic control systems of a container mixer for pigment powder are not designed to meet the **highest ATEX requirements**



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CHALLENGE

1. Safe operation with **all ignition sources eliminated** and compliance with explosion protection requirements
(Dust Zone 22 / Dust Group IIIB)
2. **Different models** available to accommodate various container sizes



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CHALLENGE

3. Safe control of pneumatic actuators:

- Container locking
- Trolley retraction
- Container clamping
- Exhaust
- Injection
- Fresh air supply
- Air-flushed sealing bushing



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SOLUTION

Development of a pneumatic control system consisting entirely of **ATEX-compliant Festo components**, specifically featuring an Ex-certified valve terminal



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IMPLEMENTATION

- **Full integration** of the pneumatic control system into existing container mixers
- Connection to the higher-level machine control system via **defined electrical interfaces**
- Reliable integration and **coordination** of all pneumatic actuators

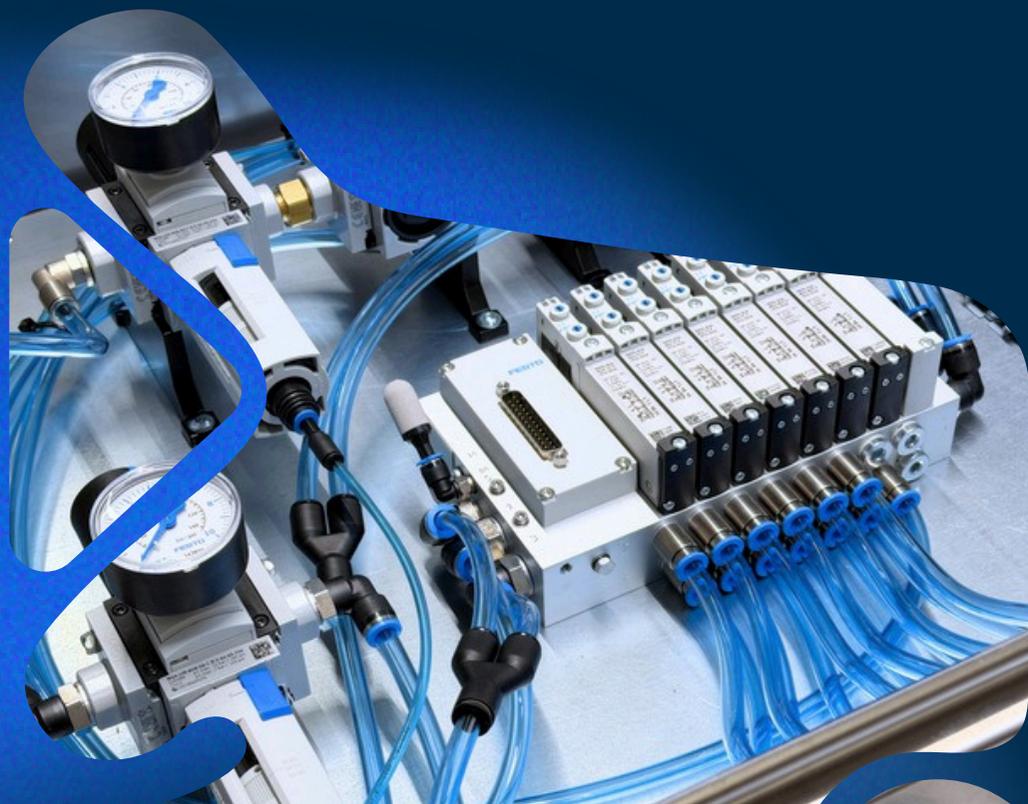


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✓ RESULT

Safe, ATEX-compliant, and **process-stable control** of pneumatic functions

Increased **operational reliability**, **easy maintenance**, and **fast service** thanks to a modular design



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BRIGHT PROSPECTS

The control concept developed serves as a **reference** for other container mixer applications with ATEX requirements and can be **flexibly adapted** to different system configurations or additional functions

